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LONDON CHAPTER
OAS

November & December 2014

14-7 & 8

The next **London Chapter** meeting will be held on **Thursday, April 14, 2016**
at the Museum of Ontario Archaeology.

Amy St. John, a PhD candidate in **Anthropology** at the **University of Western Ontario**, is the next speaker. Her talk is on ***Borders in Globalization: Pre-contact Boundaries of Indigenous Peoples in the Lower Great Lakes.***

Speaker's Night is held the 2nd Thursday of each month (January to April and September to December) at the Museum of Ontario Archaeology, 1600 Attawandaron Road, near the corner of Wonderland & Fanshawe Park Road, in the northwest part of the city. The meeting starts at 8:00 pm. Doors open at 7:30 PM and as usual there will be free juice and cookies!

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The Davidson Site, A Late Archaic, First Nations Ancestral Occupation near Parkhill, Ontario. Part II: The Broad Point and Small Point Components

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Kaitlyn Malleau, Stephen Monckton, Larry Nielsen, Roger Phillips,
Andrew Stewart and Nancy Van Sas**

Broad Point Archaic

Age of Deposits

The earliest definitive evidence of use of the Davidson site location is during Broad Point Archaic times. Overall, the 40 radiocarbon dates from the site cluster in two main time frames (see Figure 20 which summarizes the radiocarbon dates received to date) with the earliest grouping dating the time of Broad Point site use. These dates suggest an age range for this occupation from about 2500 BC until as late as perhaps 1700 BC or almost an 800 year period. These dates are biased to the small excavated area in one portion of the site and hence, likely do not date the total time of more intensive site use. Most of the dates fall within the pre-2000 BC period and the pre-2200 BC period in particular. The earliest concentrated dates of pre-2200 BC are on materials widespread across the excavated areas including Excavation Blocks A, B, C and Anomaly Areas I and II. They also include a single date from Ian Kenyon's (1980a) earlier site work just to the south. The other dates, which suggest later Broad Point site use, are more spatially restricted. There is a smaller cluster of the latest dates (N=3) in the period between ca. 1900 and 1700 BC and such confirm Ontario Broad Point use in that date range as had been suggested by reported radiocarbon dates from other Ontario sites such as the Peace Bridge site near Fort Erie, Ontario (Robertson et al. 1997). At Davidson, these three latest dates come exclusively from the west end of the East-West Trench/Feature#17 Extension area (see Figure 12). Of the other three dates of ca. 2200 to 1900 BC (forming two more isolated darker peaks on Figure 20), two of the dates came from the very southern edge of Block Unit A (see Figure 12). The indications of a restricted spatial location for the later groups of dates strongly suggest that the specific areas used at the site shifted slightly over time during the Broad Point occupations.

Spatial Distributions

The artifacts distinctive of this time period, including the large stone points and the debris on coarser grained-rocks that were often used to make the points, are found over the whole site or essentially all of the 1.9 ha area. In contrast, with the exception of one isolated artifact, all the Small Point Archaic artifacts are restricted to the northern part of the site (including the excavated area), concentrating along the old river course at the northwestern site margin (stars on Figure 13). The spatial extent of the Broad Point occupation is very large for an Archaic site of

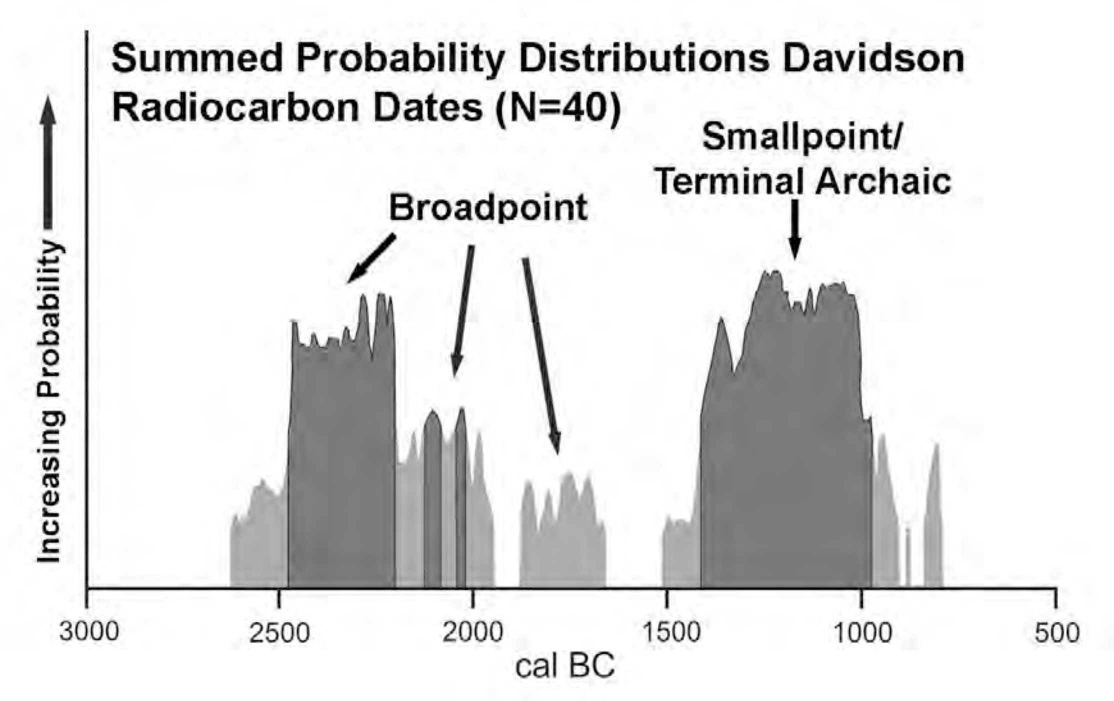

***Figure 20: Summed Probability Distributions of Calibrated Radiocarbon Dates at One (dark grey) and Two (light grey) Standard Deviations. This graph shows the areas with the greatest statistical overlaps of the dates*.**

any kind and hence, is quite unusual. The only other southern Ontario Archaic sites that we suspect are as large are also Broad Point in age and, based on local informant testimony, include one site on the Ausable that is within the modern town of Grand Bend near Lake Huron about 10 km to the north of Davidson.

Plotting of the surface finds of artifacts distinctive of this time period indicates there are six or possibly seven clusters of Broad Point material at the site. These clusters are best shown by the plots of the flakes on sub-greywacke and other coarse-grained materials produced by making and using stone tools (Figure 21). Among other things, other distinctive Broad Point artifacts like points occur in smaller numbers and are more likely, as larger artifacts, to be plough dragged so they are less useful in mapping activity areas (Keron 2015). Five of the six best defined of the coarse-grained flake clusters are arranged in a line from the south edge to the area at the north end adjacent to the old river course, while the other two, including one well-defined and another more ephemeral, are just inland from the old river course area at the northern end (Figure 21). It is probable that there may have been other such clusters in the eroded central river bank area and certainly the completely buried excavated area does provide evidence of others not seen in the

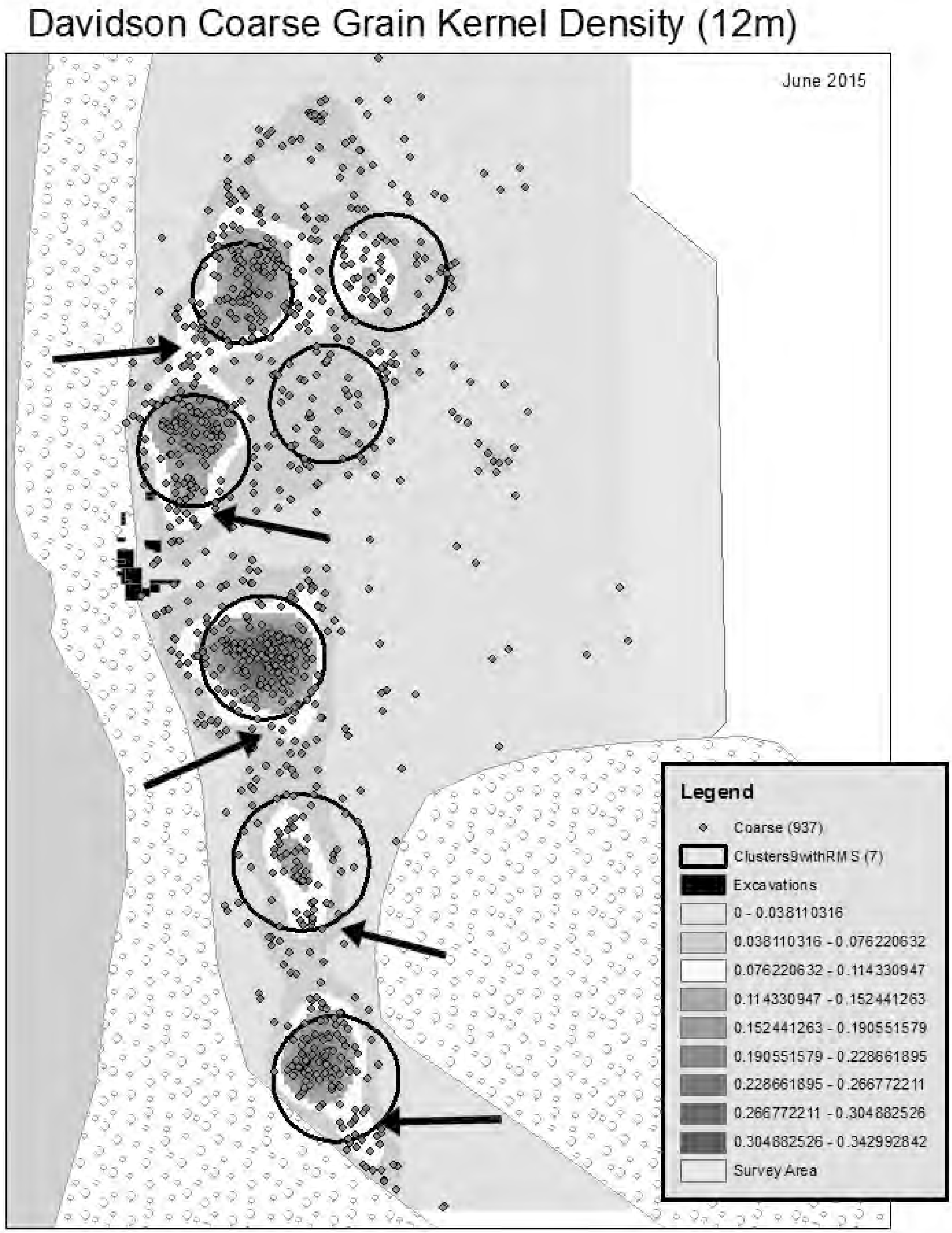

Figure 21: Statistically Isolated Clusters of Broad Point Archaic Waste Flakes on Subgreywacke and Other Coarser-Grained Rocks. Arrows show extensions extending south off main clusters.

ploughed field. Regardless, the five encompassed in the ploughzone arranged in a north to south line are notable in several respects. For one thing, and although they vary in the density of artifacts, the work of Keron (2015) shows they (and the one well-defined more north-easterly located interior cluster) are all about the same size (35 m across). Also, all of the main clusters in are spaced quite evenly with about a 50m distance between the centres of each adjacent cluster. There is even a suggestion each cluster has the same internal structure spatial structure as they all consist of a single larger cluster with more or less of a smaller extension or sub-cluster in a somewhat southerly direction as indicated by arrows on Figure 21 – the third cluster from the south end may be an exception.

Of course, these activity areas are defined based solely on coarser-grained flakes. However, as noted earlier, in 2015 we did a complete collection of every object on the surface by $5m^2$ unit on the south half of the site where only the Broad Point materials are found. It is certainly true that there are some dense concentrations in peripheral $5m^2$ units, but for the most part the clusters of chert debris, by frequency (Figure 22) or weight (Figure 23), match the location of the three statistically recognized clusters of piece-plotted coarse-grained flakes represented by the large overlying circles on the figures. That is, there are denser concentrations of debris surrounded by lesser concentrations per unit centred on each cluster of the coarser-grained flakes. In addition, as indicate by the smaller elliptically outlined areas on Figures 22 and 23, there does seem to be a southerly extension off each main cluster matching what is seen in the coarse-grained flake patterning. Moreover, the presence of less debris in the middle/central cluster of these three southern clusters matches the lessened number of coarse flakes in that same cluster as does the excess of chert flakes seen in the northernmost of these clusters (compare Figures 22 and 23 with Figures 13 and 21). It is plausible that the excessive number of chert flakes in the northernmost of these three southern clusters is overemphasized because of the presence of some material associated with the nearby Small Point materials to the north dragged into the area by ploughing. Indeed, Small Point artifacts were recovered in the excavated area abutting the northwest edge of the collected $5m^2$ area. However, we note there seems to be a relatively large number of chert flakes also in the area along the west field edge beside the middle cluster of coarse-grained flakes, immediately adjacent to the unploughed western field margin and the adjacent area to the west which was eroded in the 1970s (Figure 21). As this high density is also mirrored by FCR densities in that area, we suspect that what we might be seeing is the edge of other site clusters. Perhaps these clusters even include Broad Point materials that existed in the unploughed area just to the west which adjoined the area eroded in the 1970s (compare to Figures 9 & 10).

The plotting of the FCR by 5 metre units produces less clear patterns. There are areas of more FCR associated with units encompassed within the centre of the coarse-grained flake clusters versus most units at the edges and into surrounding areas, at least in the two southernmost areas (Figure 24) but the huge amounts of material associated with the northernmost cluster (20-74

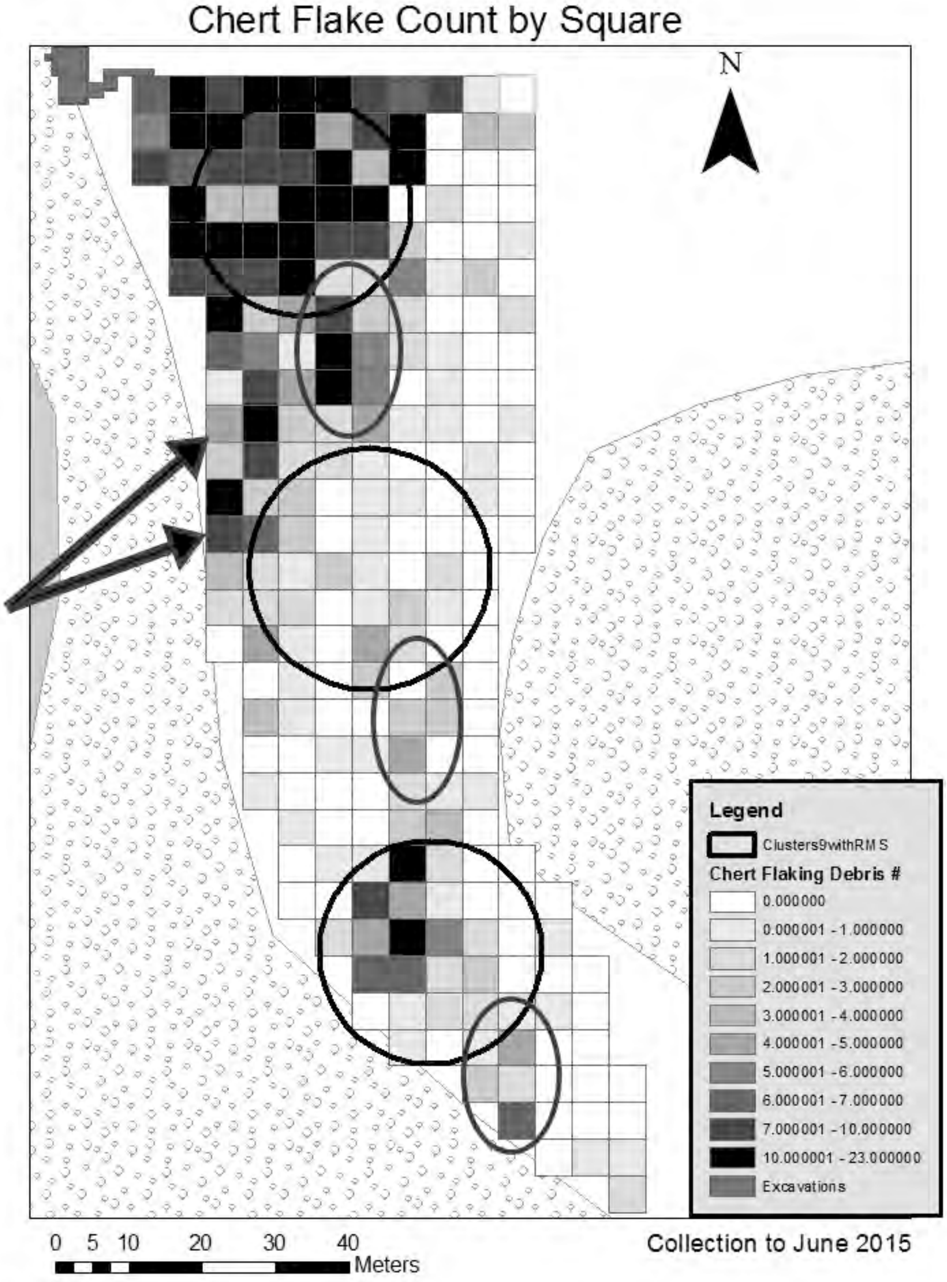

Figure 22: Density of Chert Debris by Frequency per 5 m^2 Unit on South Half of Davidson site. Arrows show concentration at field edge. Circles outline coarse-grained flake concentrations and ellipses outline extensions extending south off main clusters of chert debris.

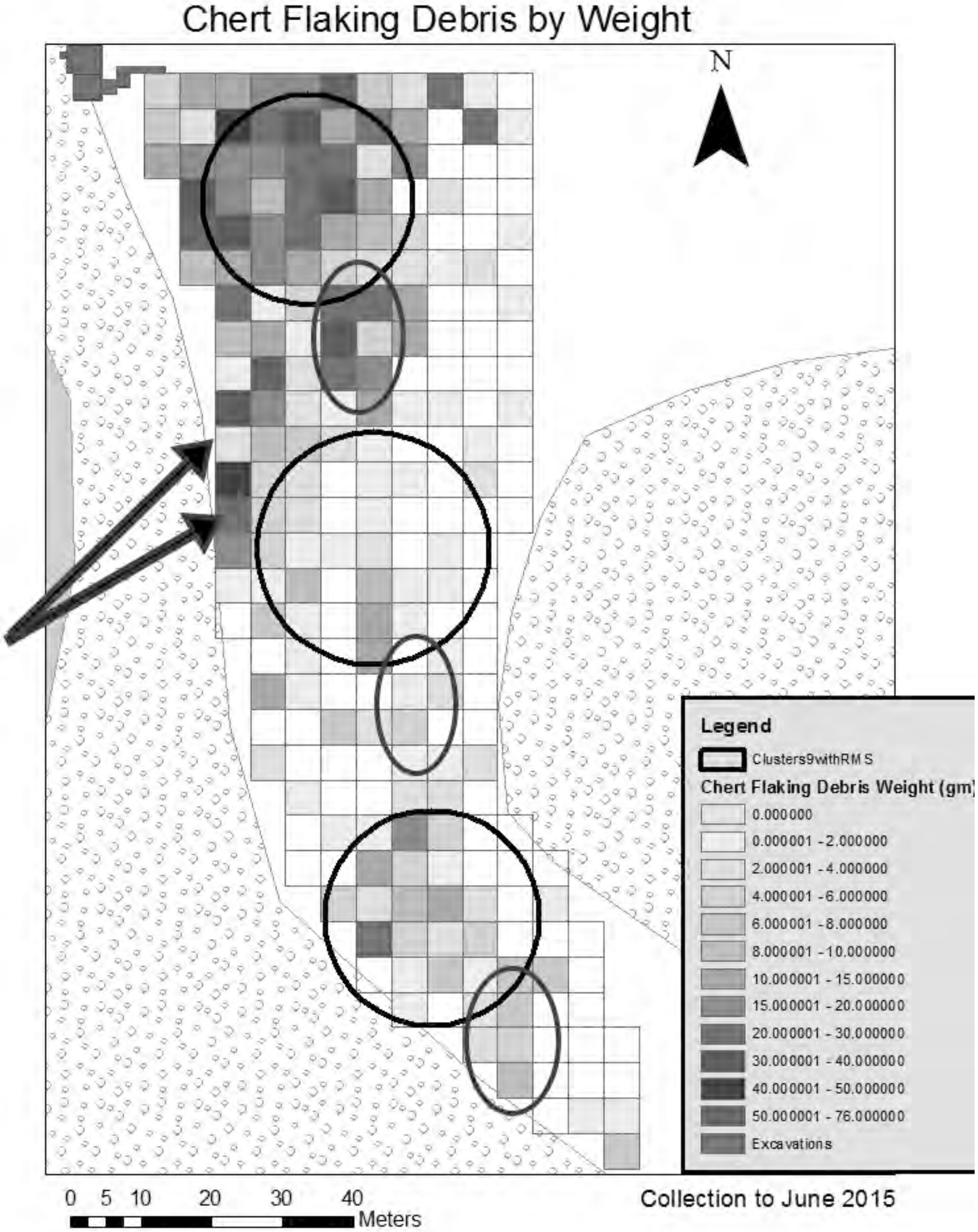

Figure 23: Density of Chert Debris by Weight per 5 m^2 Unit on South Half of Davidson site. Arrows show concentration of debris at field edge. Circles outline coarse-grained flake concentrations and ellipses outline extensions extending south off main clusters of chert debris.

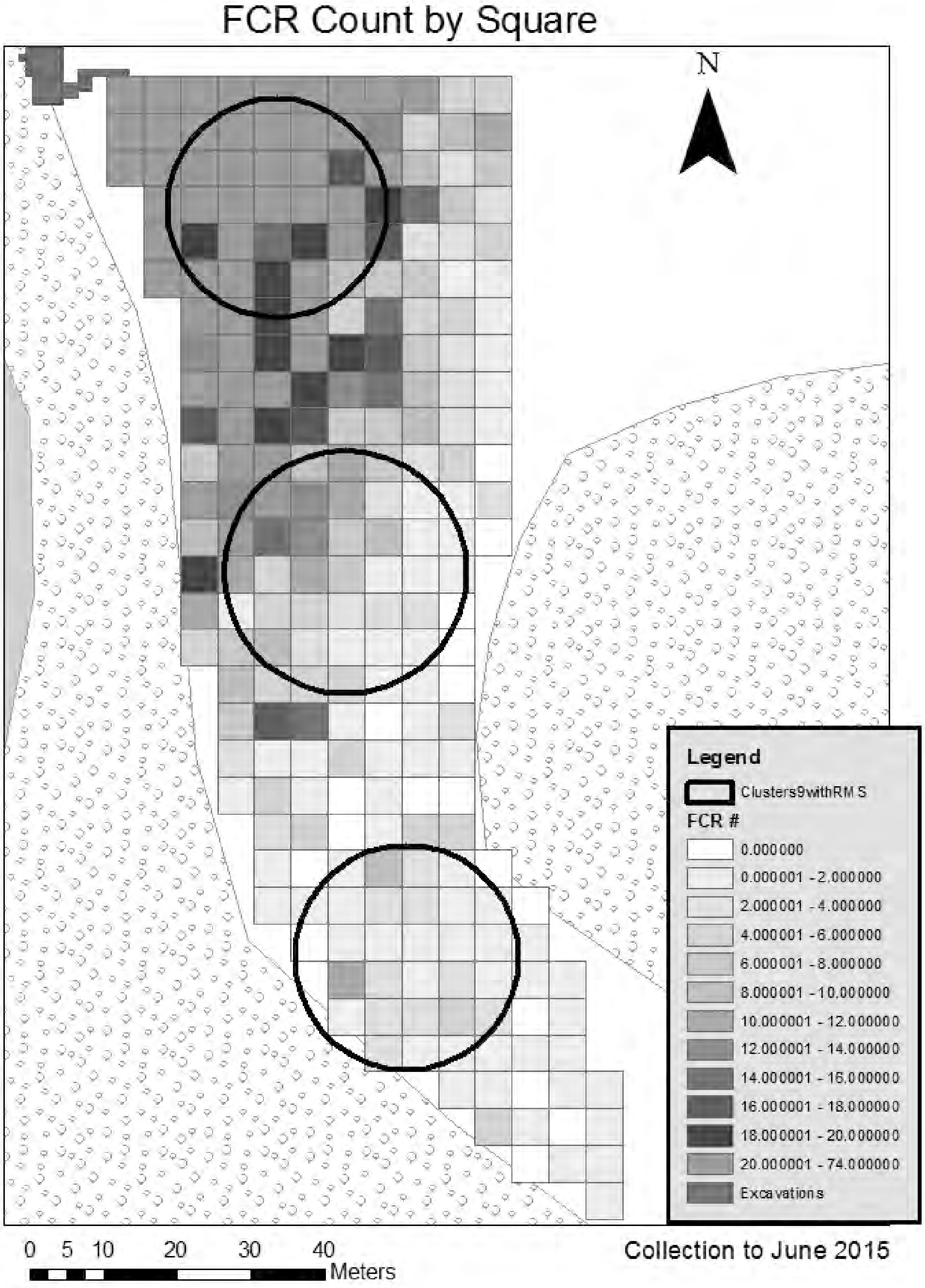

Figure 24: Density of Fire-Cracked Rock by Frequency per 5 m^2 Unit on South Half of Davidson site.

items) obscures variation in that area in comparison to the southernmost cluster areas where there is never more than 14 pieces of FCR per unit (Figure 24). As mentioned above, we also note the presence of substantial numbers of FCR at the central west field edge as is also implied by the chert waste flake distributions and which we suggested earlier may indicate the edge of more clusters of material, not necessarily Broad Point, that were in the eroded bank area to the west.

Overall, the meaning of the main Broad Point clusters and the exact function of these areas is unclear. Yet generally, the fact the artifacts in each are of the same kind indicates they were used for the same purpose and the diversity of forms including debris from stone tool making and apparently FCR from various cooking and heating activities suggest these do not represent areas where different kinds of activities occurred. Rather, they all seem to have been the location of a range of everyday domestic activities. Overall, the small sizes of the areas suggest each was occupied by a small social unit such as several extended possibly closely related, families. Each cluster could represent a reoccupation of the site over a long period of time with the inhabitants shifting the places they chose to occupy from one year to the next or one decade to the next. However, what is also interesting is that the various clusters are evenly spaced with about 50m separating the centre of one cluster to its neighbour(s). This equal spacing is not likely to result from simply using different site areas over time – we should not expect patterning of this nature if each cluster represented a discrete occupation(s). Rather the consistent spacing suggests that each area may have been used at generally the same time although the areas with more materials obviously could have been used more often or returned to more often. That being the case, each cluster could represent different small social units that came to live together at the site in a particular season. Such sites are called “aggregation sites” by archaeologists and anthropologists as they represent places on the landscape where normally dispersed families and other social groups gathered together seasonally to socialize and exchange information. If Davidson was an aggregation site in Broad Point times, it would explain why the site is so abnormally spatially large although it would not explain why evidence to date indicates only Broadpoint-making peoples in the Late Archaic seem to have aggregated together in such large numbers.

Tools

The most distinctive stone tools associated with the Broad Point occupation of the site are, of course, the large stemmed points. The Davidson examples have outlines largely more “Christmas tree-like” in nature (Figures 3 & 4) that are most comparable stylistically to points found to the east and southeast of Ontario, notably the Genesee style first recognized in the Genesee valley of central New York State (Kenyon 1980a; Ritchie 1971). These points occur not only on the coarser-grained rocks like sub-greywacke but also on cherts such as from the Kettle Point sources to the northwest. Also, items on Onondaga chert from the southeast near Lake Erie are present. Large numbers of such points broken in manufacture (called preforms as they are “pre” the finished form) also were recovered. These unfinished tools are quite large and have a distinct outline shape that is characteristic of Broad Point preforms just about everywhere they are found. The knappers roughed out a large item flaked on both faces (called not surprisingly, a biface) that had a distinctive five-sided or pentagonal outline (Figures 19b, 25) and they carried the items around in this more robust, less breakable, form. Then they completed manufacturing them by creating the narrower stem of the finished point as needed. Other, definitive, bifacially flaked tools present are items with heavily ground/worn tips, probably from hide-working and some tools with narrow pointed working ends used as drills or perforators (Figures 19c, 26). Some of these worn tip tools (Figure 19c) and certain stemmed drills (Figure 26g-h) are made by recycling old weapon tips but other tools seem to have been initially made as these tools such as one complete worn tip item on slate that the flaking indicates never had the pointed tip characteristic of the weapons (Figure 26a) and some drills with expanding and concave bases (Figure 26d-f).

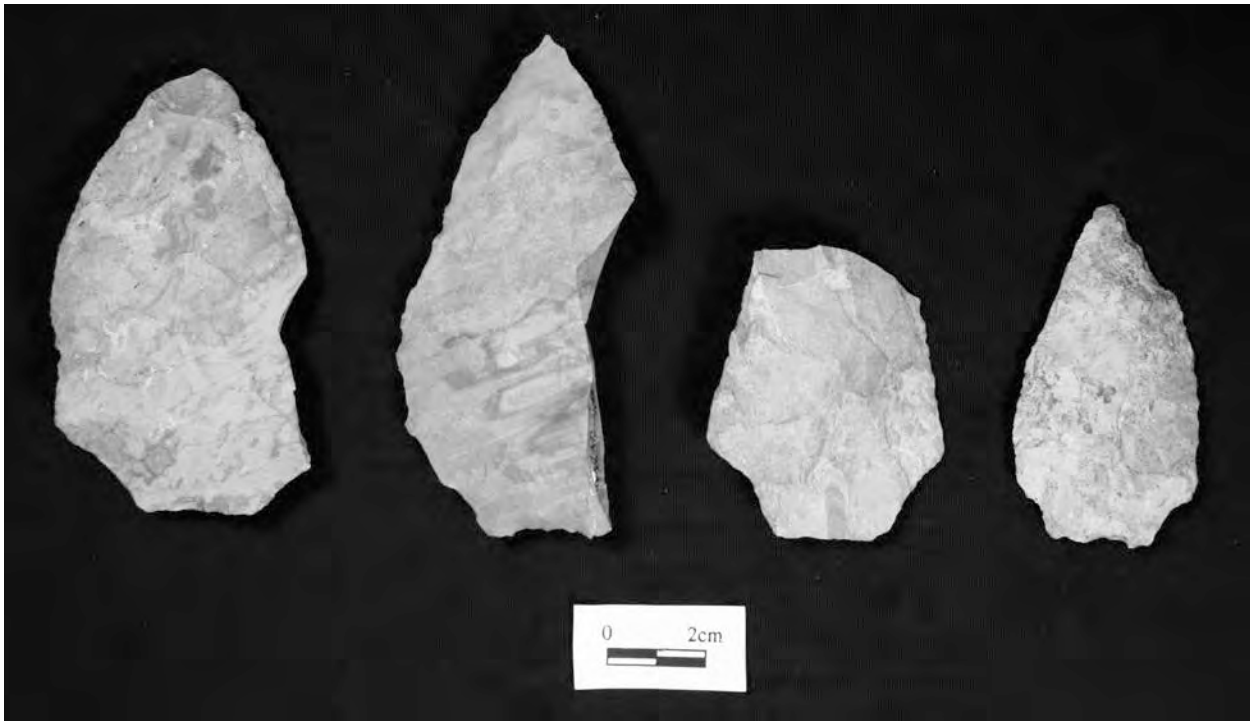

Figure 25: Five-Sided or "Pentagonal" Broadpoint Preforms, Davidson Site, on Onondaga and Kettle Point Cherts.

As for the rest of the Broad Point Archaic stone tool kit, it is difficult to separate out these less distinctive tools recovered on the northern site surface and the excavated area as the same areas have much debris left by the later Small Point Archaic age occupants who often dug through and incorporated older material in later constructions. Nonetheless, the remaining stone tool kit from the site that is attributable to the Broad Point occupation is apparently not large or elaborate (see Figure 27). It does include some small tools with working edges at the sides or end of a flake used in various activities involving the scraping of hides, bone and wood as well as small chert items used as wedges in splitting bone or wood. Also included in the stone tool kit are wood working adzes, large hand-held choppers, probably notched stone netsinkers (e.g., fish net weights), and "pitted" stones. The last-named are generally believed to have been used as anvils and in the breaking up and processing of nut foods.

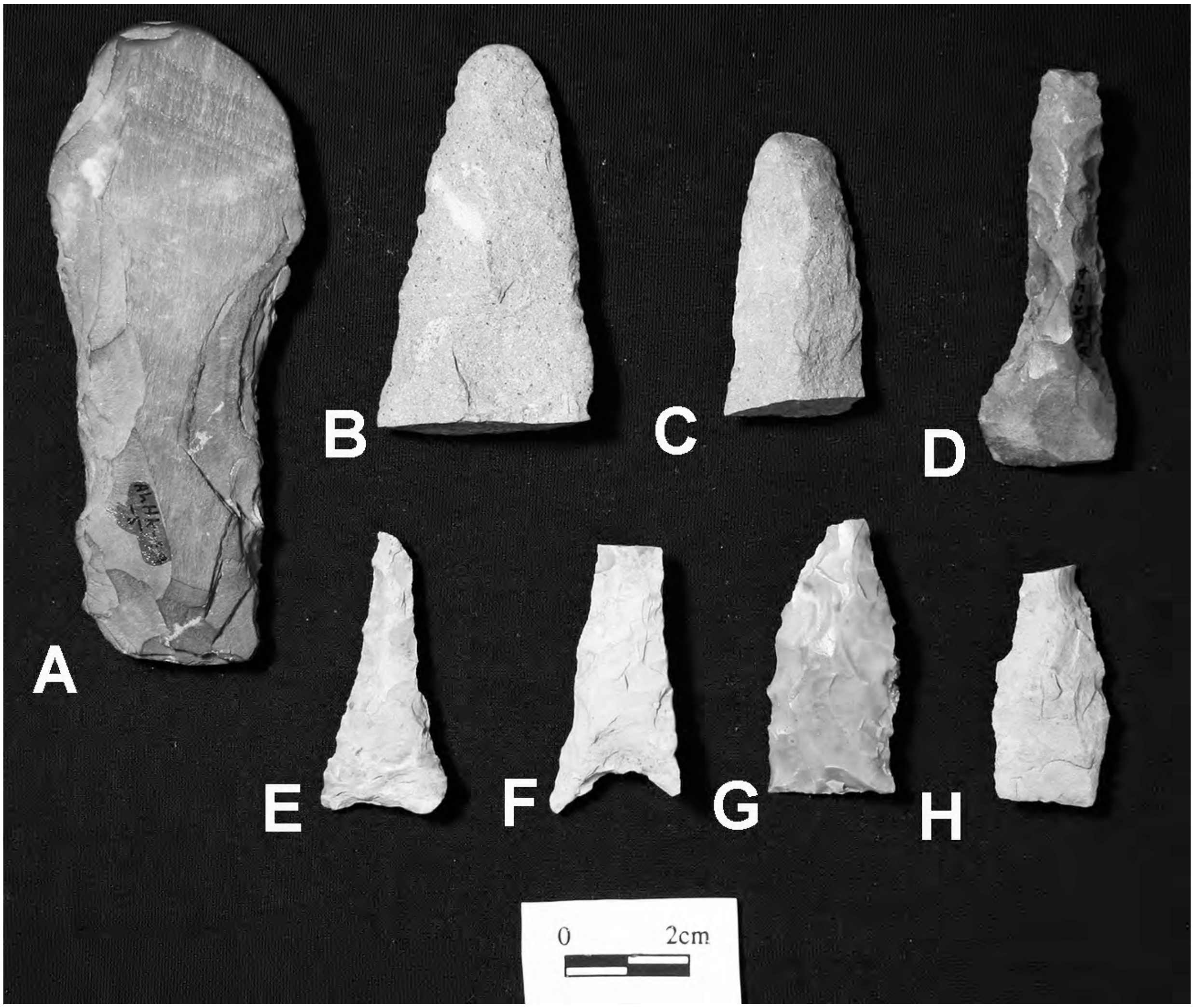

Figure 26: Broad Point Archaic Biface Tools. A-C: Bifaces with rubbed tips; D-H: "Drills". G and H have been made by recycling stemmed point bases.

Tools on organic materials like bone or antler are rare at the site and strictly from the buried areas where preservation is better. It is also difficult at present to assign these items, such as a bone fish harpoon tip (Figure 27b), to either of the main site occupations but at least one bipointed bone fish gorge used in line fishing is associated with Broad Point site use. Two native copper artifacts were also recovered from the site. One of these items, too fragmentary to identify, is associated with the Broad Point occupation, having been recovered from the midden/garbage dump associated with the earliest period of site use (see below). The second, which cannot be assigned to Broad Point or Small Point Archaic site use, is a probable fish hook. The copper on Ontario sites originates largely in the Lake Superior area and was likely traded over this long distance to the peoples using the site.

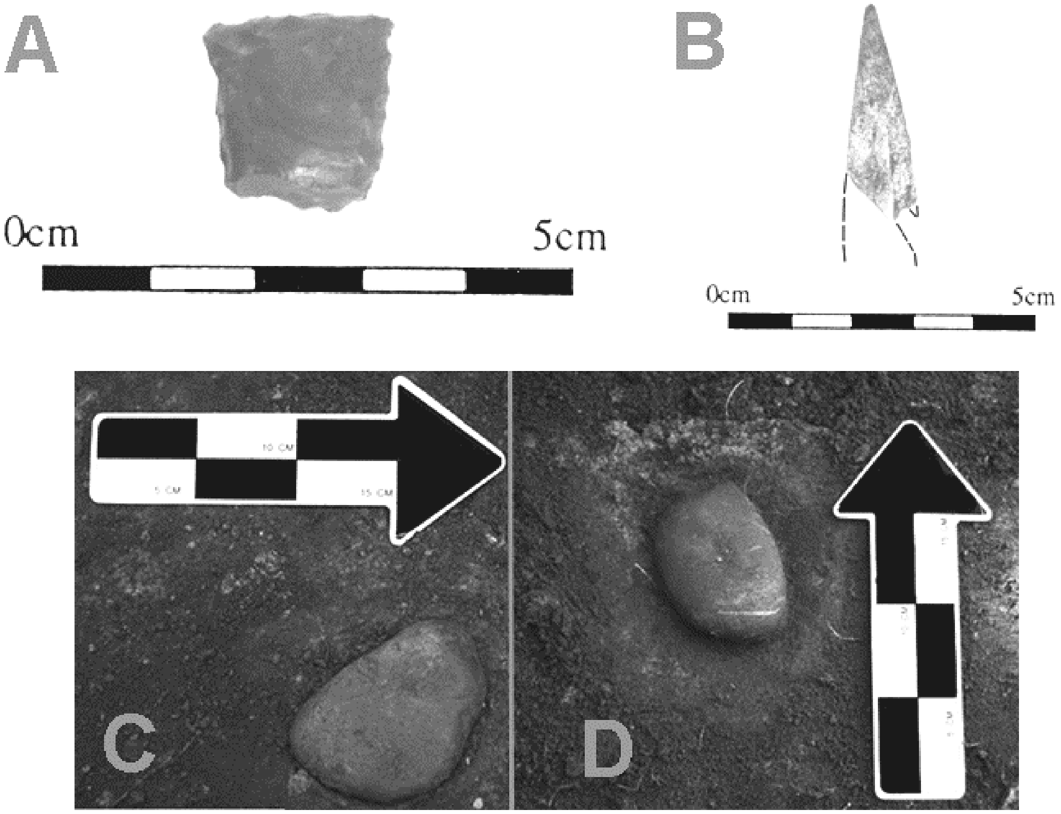

Figure 27: Possible or Definitive Broad Point Artifacts. A: End Scraper on Kettle Point chert; B: Bone harpoon tip; C: Notched cobble netsinker; D: “Pitted” stone.

Floral and Faunal Remains

Although analyses are not complete, a wide range of floral materials can be associated with Broadpoint Archaic site use. Notable is the presence of charred nutshell. Butternut seems common but hickory, black walnut, beech and acorn shell are also present. Other plants represented include wild varieties of raspberry, strawberry, cherry, and grape as well as cleavers, small grass and cattail. Charcoal from species such as ash, elm, beech and red oak are relatively common but lesser amounts of ironwood, maple, beech and very rarely, white pine, indicate these species were also being used as firewood. Although it will require much more research to confirm the identification and age, a possible squash/gourd rind was found in a later dating Broad Point midden/garbage dump deposit dated to ca. 1800 BC. We know that Archaic peoples of this time were definitely using and planting this species in small gardens locally in adjacent Michigan – the earliest evidence for the deliberate planting and growing of a plant species in the Great Lakes area (Monaghan et al. 2006). So, if confirmed the Davidson find would represent the earliest evidence of agriculture practice in Ontario. Although bitter, the seeds can be used as food with leeching and the plant was also very useful as a container, or as floats for fish nets, or as rattle components.

The faunal collection remains largely unexamined but deer, bear, softshell turtle and fish remains, including definitively those of freshwater drum/sheepshead, are present. In addition, Ian Kenyon (1980a) in his 1979 excavations just to the south of our excavation units found a very poorly preserved dog burial (only the teeth and jaws were somewhat intact) placed in a deliberately dug pit. Chemical analyses of the dog bone and teeth by Zoey Morris (2015) has shown that compared to later dating dogs the Davidson dog was not eating any maize – not surprising as there is no evidence this plant was used until after Archaic times. Moreover, compared to related species like wolves, the Davidson dog stands out because it was eating a relatively large amount of fish. As this dog was undoubtedly being fed by humans, and by foraging amongst garbage left by the site inhabitants, it also suggests fish were important in the overall diet of the Broad Point-making peoples at the site.

Features/Constructions

Most of the features or in-ground constructions found at the site date to the later Small Point Archaic occupation. However, several definitive Broad Point features were also uncovered, often of forms not previously documented. Two notable features are true “middens” or garbage dumps. These consisted of natural erosional channels in which the inhabitants had deliberately discarded and accumulated garbage. One example of such a midden was what was called Feature #17. It was found at the western end of the East-West Trench and into the adjacent Feature #17 extension and that feature and an adjacent small pit yielded the latest dates related to site use by Broadpoint making peoples. As noted above, a possible squash rind was recovered from this midden. This deposit extends beyond, and seemingly well beyond the area we excavated based on the gradiometer magnetic anomaly in that location. However, we were able to remove a 5m long section of the midden that was up to 1.5m wide and extended 80+ cm deep (see Figure 28).

In some places this midden was layered with intervening sterile soil indicating use in at least two separate times around 1800-1700 BC. A second such midden was called Feature #77. It dates to the earliest period of use during Broad Point times (e.g. ca. 2400 BC) and a 2m long section that extended up to 70+ cm deep was exposed. As people were clearly not living in erosional channels, these instances represent deliberate, consistent disposal of refuse in spatial areas specifically set aside for that purpose. Such evidence is one excellent indication of intensive occupation and for extended periods of the year as people only go to the trouble of such specialized and organized refuse disposal if they plan on staying or being around for some time. These true middens may actually be the earliest documented for Ontario and they most certainly are for southwestern Ontario.

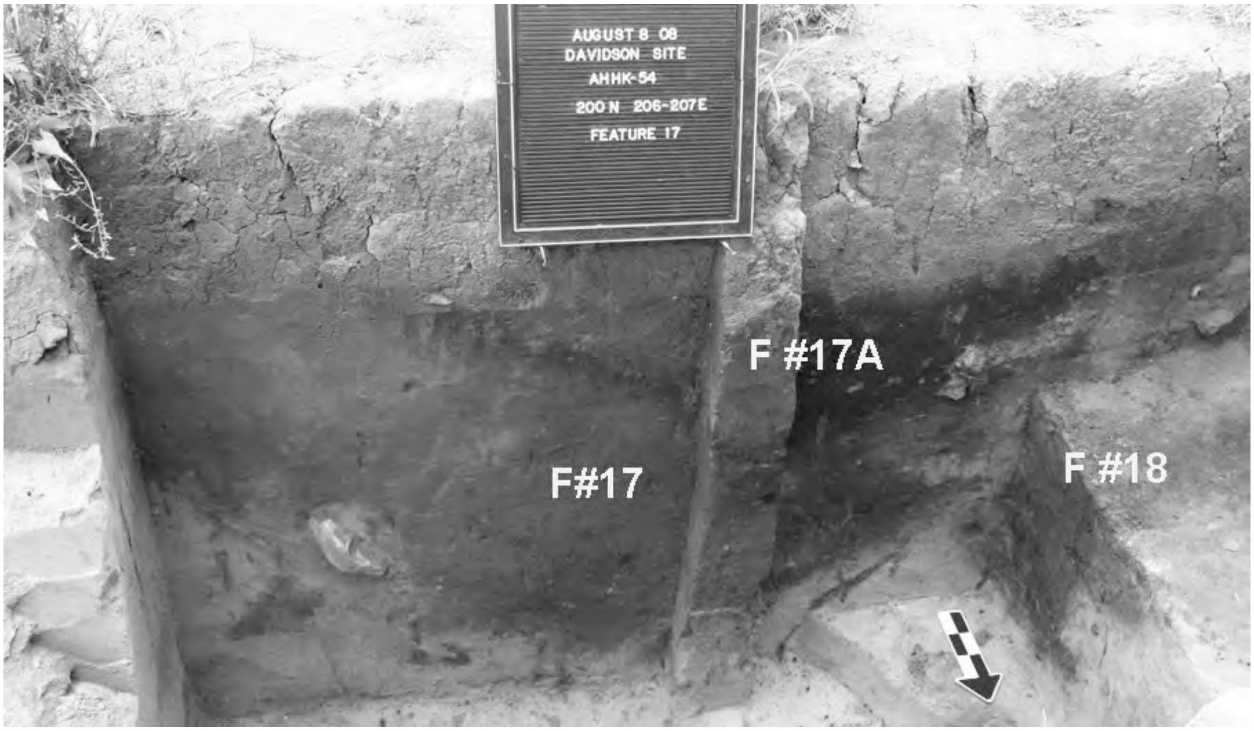

Figure 28: Profile of Broad Point Archaic Deep Midden/Refuse Filled Erosional Channel (Feature #17) in south wall of East-West Trench. Note large stone chopper protruding from bottom of midden at lower left. Feature#18 is a later Broad Point Archaic pit dug down into the midden while Feature #17A is a subsequent Small Point Archaic pit containing a Crawford Knoll style point that cut down into both Features #17 and 18. Feature #17 is dated to ca. 1800 BC.

Another important kind of feature discovered was a large (1.5 m diameter by 80 cm deep) pit (Figure 29) found in the Block Unit B that is directly radiocarbon dated to the pre-2000 BC period of site use. Of note, this feature in profile had a narrow top (removed or widened out on the north side when the feature was opened to extract its contents) that expanded in diameter with depth such that it originally had a bell-shaped profile. Pits with such narrow top openings were used historically as storage facilities for food surpluses. These narrow tops made them easier to seal to protect the contents. While originally used for in-ground storage, as with most features it had become filled with refuse after use for its primary storage purpose. Other similar features seem to have been present but their tops had largely collapsed filling most of the insides with sterile soil and making them difficult to delineate. The presence of in-ground storage pits is important as it suggests abandonment of the site during the winter (see below).

Another Broad Point feature was a small pit hearth found in the Area C extension. As is the case with hearths the pit fill was filled with fire-reddened soil although fire-cracked rock was not present in this example. Included within this hearth was the stem of a fire-fractured Broadpoint. The bottom of another pit hearth associated with the use of the site by Broadpoint-making peoples was also uncovered in the 2014 test excavations in the cluster of debris in the ploughed area at the very south end of the site. This hearth also did not have much of the way of fire-cracked rock but it seems to have been clay lined and the subsequent burning in the pit had baked, hardened and fire-reddened this clay lining.

The remaining features were all relatively small and shallow pits with wider tops and more basin shaped profiles (e.g. Figure 30). The purpose of these pits is unknown. While they may be filled with refuse it is more likely they were used simply as a convenient place to dispose of debris *after* they had outlived their usefulness for other purposes. Those other and original purposes could have been as cache pits, latrines, etc. but we do not really know. The possibility some were cache pits is suggested by a small, shallow feature found by Ian Kenyon (1979) in his earlier excavations that contained four, largely intact, finished Broadpoints.

Summary and Conclusions: Broad Point Archaic Occupation

The site was used by Broad Point making peoples from 2500 to 1700 BC with the excavated areas being used primarily early in that time frame. Given the extended length of time the site was visited, it is uncertain if the reasons the site was used, and exactly how it was used, remained the same over the length of the occupation. Also, only a small area of the known large spatial extent of Broad Point site use has been examined by excavation and we do not know if this is typical of site use as a whole at any one point in time. At the same time only a portion of the site is accessible through surface collection of artifacts and we do not know if those surface collections are typical of the area buried along the river or eroded away in the 1970s or earlier.

Assuming that peoples use of the site was uniform from ca. 2500-1700 BC, it can be suggested, based on the berries/nutshell/acorns, and the faunal remains of species of turtles and fish, that the

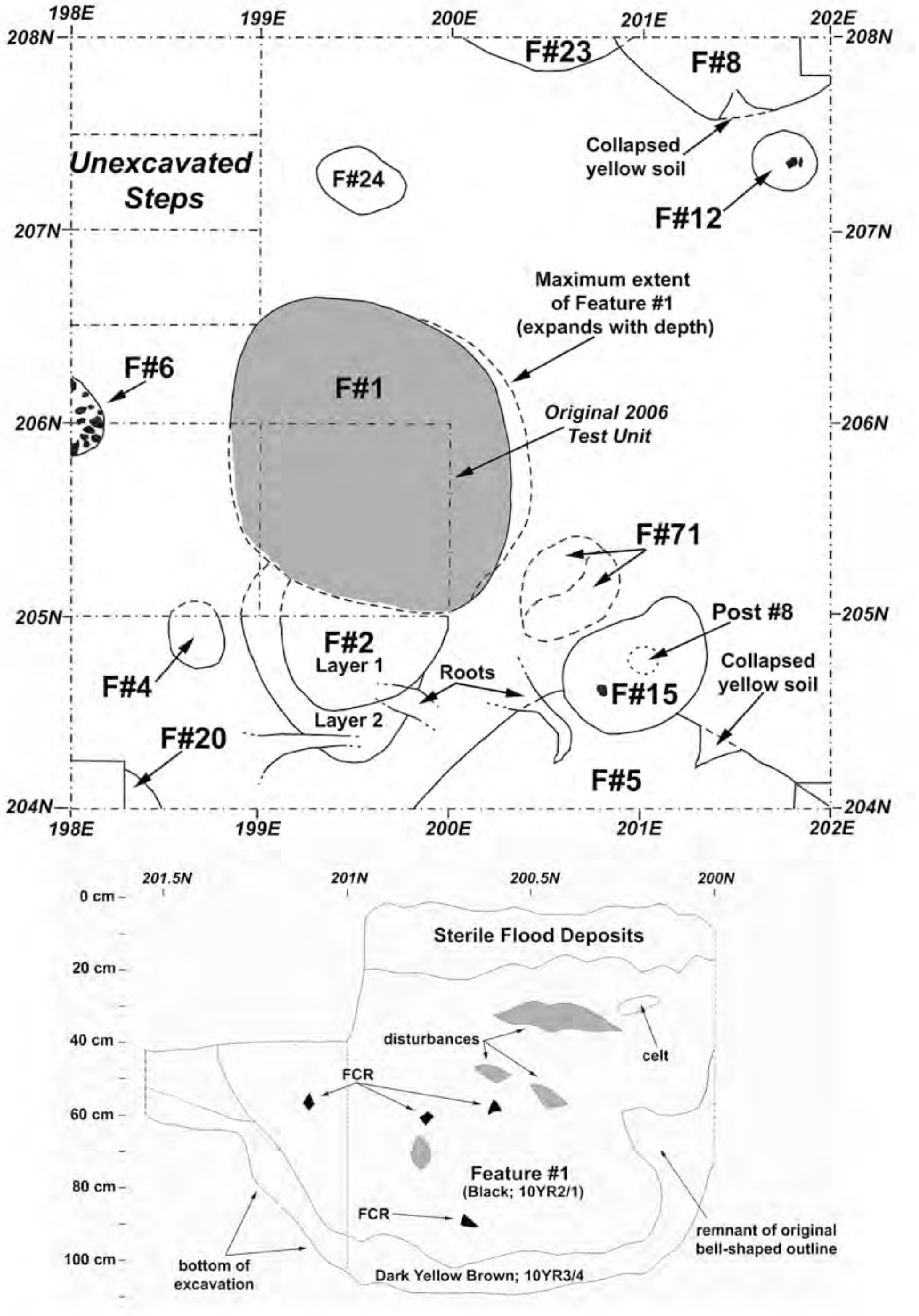

Figure 29: Plan (Grey at top) and Profile View (bottom) of Large Broad Point Archaic Storage Pit in Block Unit B, Davidson Site. Dated ca. 2000 BC.

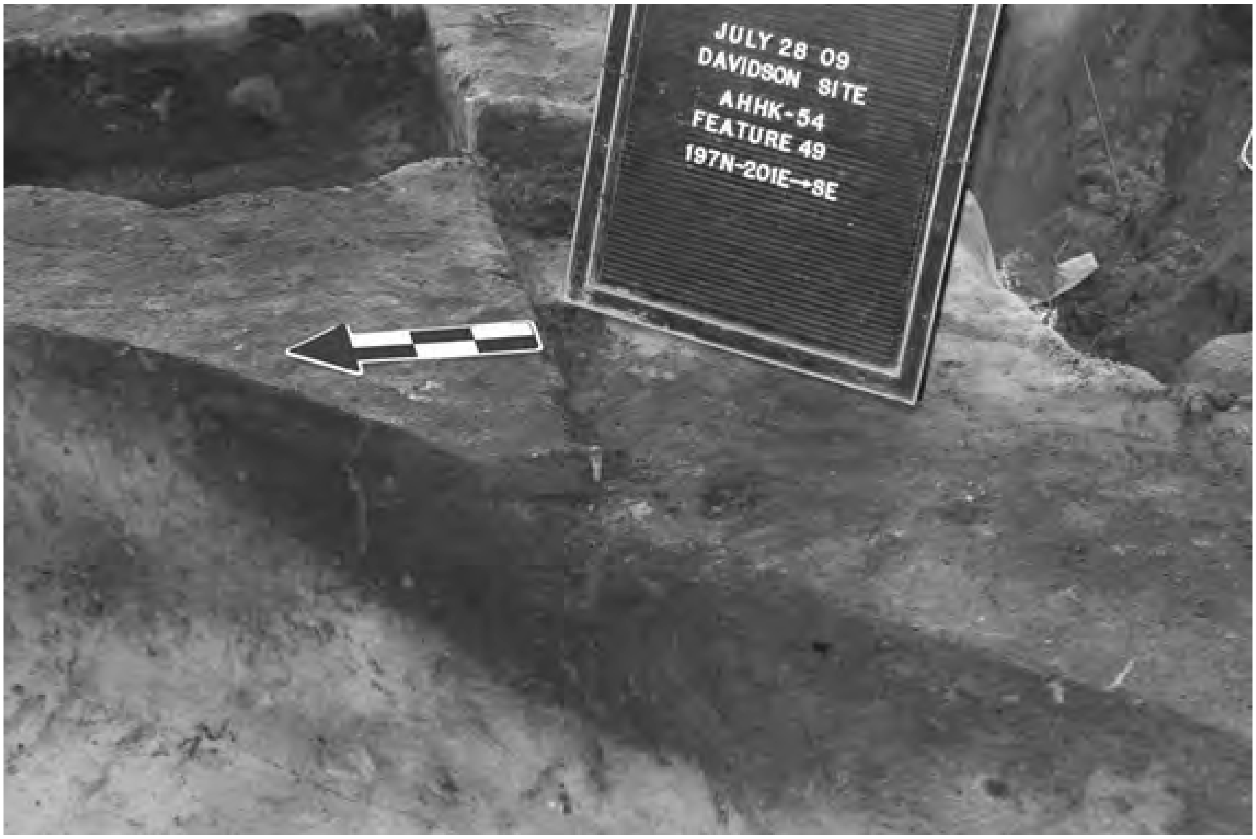

Figure 30: Profile of Shallow Broad Point Pit (Feature #49) in Block Unit A. Two radiocarbon dates indicate an age of ca. 2400 BC for this feature.

site was primarily used in the summer through fall. Of course, people can store species for later use or use animal remains such as turtle shell for use as tools and artifacts such as rattles, so it is possible the site could be used at other seasons. However, the in-ground large pit storage evidence is of note in this regard. Storage is used to house materials for use during leaner times of the year such as the winter and early spring. In recent times, and at a world-wide scale, in-ground storage is used almost exclusively when a site is abandoned for significant periods. Use of in-ground storage allows one to protect or hide the stored foods from animals and other people and often when one is absent from a site (DeBoer 1988; Gotthilf 1983). Hence, the presence of in-ground storage suggests winter abandonment of the site. The stored products could be accessed by returning the following spring when resources were low, as was the practice by native peoples of the Great Lakes area in post-European times (e.g. Holman and Krist 2001:9). Alternatively, if one is not wintering too far away, during a particularly hard time in winter one could return to the site periodically to recover some of the stored foods and overcome the odd shortfall.

The occupations in the summer to fall were apparently not simply brief, unsubstantial visits. Rather the presence of specialized areas (true middens) set aside for garbage disposal suggests a more planned stay for a longer period in which areas needed to be occupied for extended periods and kept clear of debris. As detailed above, such middens are associated with both the earliest and latest radiocarbon dated periods of site use by Broadpoint-making peoples. This evidence is the best, real positive evidence we have that people were moving less often during Broad Point Archaic times. The large size of the site, along with the clear spatial patterning in size and spacing seen in the repetitive concentrations of Broad Point occupation debris in the ploughed site areas back from the current river, also suggests that at least during some of the occupations at the site may have witnessed the coming together or aggregation of many different social units such as extended families who were dispersed over the landscape at other times of the year. An interpretation as an aggregation spot would help to account for the large spatial extent of the site and if Davidson is any guide, the presence of several such large sites (and smaller ones) in the lower Ausable area indicates it was generally a very popular place at the time.

Small Point or Terminal Archaic

Age of Deposits

Multiple radiocarbon dates from the excavated site areas strongly cluster and indicate an intensive use of the site during the period from ca.1400-1000 BC by people making Smallpoints. Dates elsewhere from other sites suggest the use of the smaller stone points or weapon tips may have begun as early as ca. 1500-1600 BC (Ellis et al. 2009: Table 22.4) but that could simply be an artifact of the radiocarbon technique – most reported dates from other sites were done some time ago using older somewhat “outdated” (*pun intended*) methods and have larger statistical spreads. Regardless, the occupations at Davidson may have occurred sometime after the use of such smaller points was adopted. Indeed, at face value, or assuming the Davidson radiocarbon dates are representative, there may have been a ca. 200-300 year gap in site use between the latest Broad Point related occupations and the earliest Small Point ones (see Figure 20).

Spatial Distributions

As indicated above, artifacts characteristic of site use in Small Point times, which include largely the points themselves, are not found over the whole site. Rather, they are virtually all on the northern part of the site and mainly concentrate in the area on the northwest margin, extending from the excavated area north along the apparent location of the old river course (Figure 13). In sum, they concentrate in the same area as the laterally laid deposits, highest magnetic susceptibility readings, and the mass concentration of magnetometer anomalies discussed earlier (“anomaly band”) that represent dense concentrations of cultural features/constructions. Those susceptibility and magnetometer readings do not occur in areas to the south end where Broad Point artifacts are almost exclusively found, but concentrate only in the areas of the Small Point Archaic finds. Therefore, it is clear most of the features are associated with the later main periods of Terminal Archaic use. As discussed more below, this inference is confirmed by the fact most of the excavated features in the southern part of the anomaly band are, based on radiocarbon dates and the superposition of features (e.g., the features were dug down into older, already existing features), Small Point Archaic in affiliation. As there are fewer distinctive artifacts of the Small Point Archaic it is not easy to delimit any spatial patterning within the intensive area of use by these generations of people. However, different varieties/styles of Small Point seem to cluster in different parts of the northernmost site areas (Keron 2015). Assuming these point varieties primarily represent changes over time (see below), this would indicate shifting use of this general site area and that it was not used all at once or necessarily by larger groups of people. In sum, the dense concentration is the result of repeated occupations over some time (at least 300-400 years) with slight shifts in the exact location of the various occupations. Over a long period of time this effect would result in dense amounts of debris and an area paved with clusters of features.

Tools

As stated in Part I of this report, several styles or types of stone points/weapon tips are recognised during the Small Point Archaic. They include some stemmed or expanding stemmed forms referred to types such as Innes and Ace of Spades, as well as some notched forms referred to as Crawford Knoll or Hind points (Ellis et al. 1990). All of these varieties are found at Davidson (see Figures 2 & 6). The meaning of these varieties is not clear but most think they primarily represent changes over time within the Small Point/Terminal Archaic. For example, stylistically the Hind points resemble closely the earliest points of the immediately subsequent Early Woodland called Meadowood points, except the Hind points are corner-notched whereas the Meadowood points are side-notched. Also, associated with the Hind points at various sites, but not the other point forms, are artifacts such as small groundstone bird effigies and flat tabular groundstone artifacts with two drilled holes in the centre called gorgets. These other artifact forms are not found with the other Small Point types but are found in the later Meadowood collections too. The close similarities between Hind collections and the later Early Woodland ones suggest Hind is the most recent dating of the Small Point Archaic point forms. As stated above, different types of the Smallpoints tend to cluster in different places in the northwestern site area. In fact, there is even a small cluster of Early Woodland Meadowood points in that area. This evidence suggests that the Small Point occupation area as a whole represents many different, partially overlapping, site visits over a ca. 300-400 year period during which the styles of points being used gradually changed. Most of the Smallpoints and other associated flaked stone tools are made on Kettle Point chert that outcrops on Lake Huron to the northwest and, as mentioned earlier, is the closest good bedrock source of cherts. However, a few of the points are made on Onondaga chert from sources down near Lake Erie to the southeast.

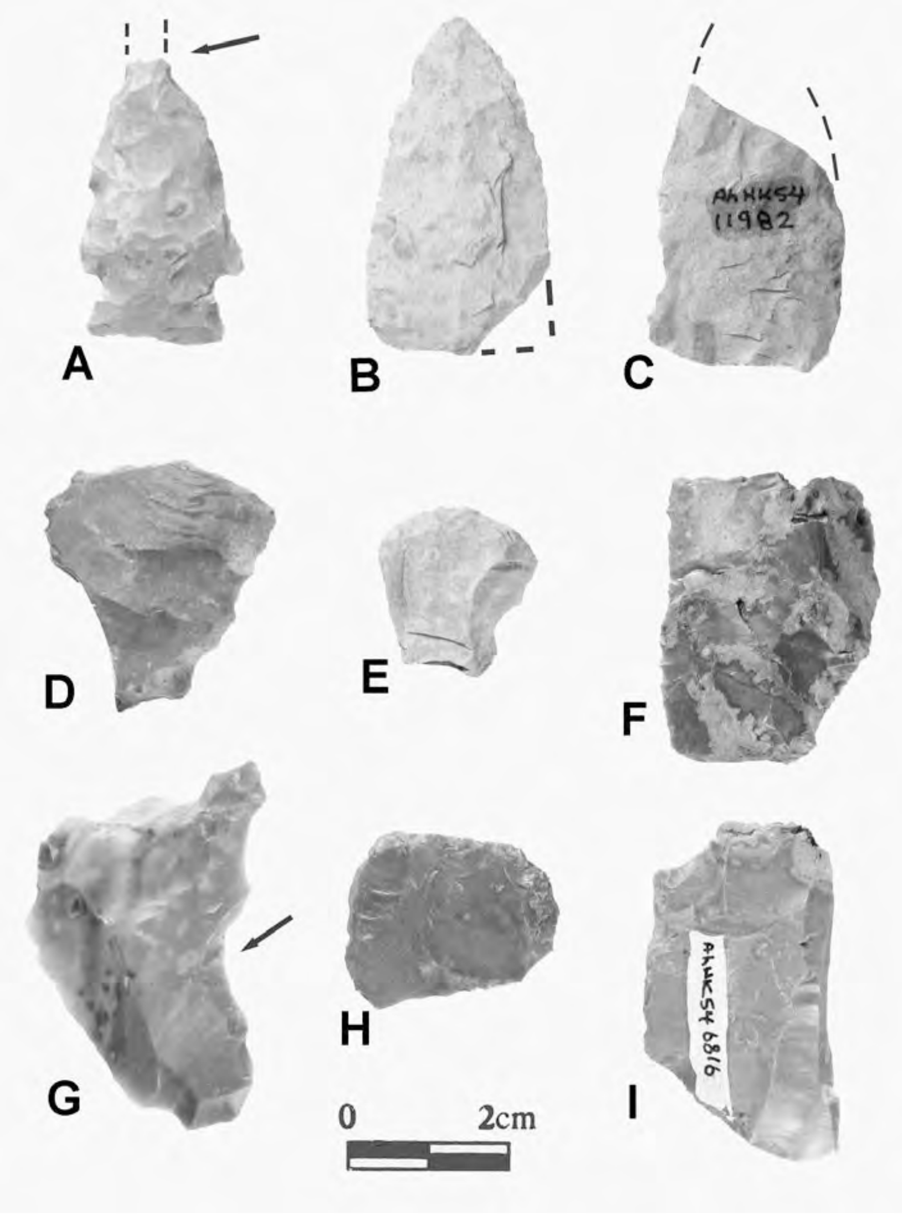

Figure 31: Smallpoint Archaic Stone Artifacts. A: Crawford Knoll Point with tip Reworked into Drill/Perforator (at arrow; tip is broken off, probably during use); B-C: Trianguloid Preforms (unfinished points discarded in manufacture); D-E: End Scrapers; F: Serrated Edged Flake Knife; G: Notch/Spokeshave (at arrow); H-I: Wedges (Note battered top and bottom edges).

The remainder of the Small Point Archaic flaked artifacts (Figure 31) duplicate that reported from other sites in the area such as the Green Hill site located about 8 km upstream on the opposite side of the river (Pearce and Ellis 2008). Unfinished points or preforms are common and they tend to be small and oval to tear-dropped to somewhat triangular in outline shape (Figure 31b-c) as opposed to the large pentagonal preforms of the earlier Broad Point times. Notable tools include small perforators and drills that are sometimes made by recycling points (Figure 31a), pieces battered on multiple edges from being used as wedges in splitting wood or bone (Figure 31h-i), sharp edged flakes with serrations used as cutting tools (Figure 31f), small notches/spokeshaves for shaving cylindrical objects (Figure 31g) and well-made end scrapers which, as the name implies, have a carefully made convex working edge at the end of a flake (Figure 31d-e). These end scrapers seem to have been used in hide preparation and the end opposite the convex working edge (bottom end in photo) is tapered to fit in a small, long decayed, wooden handle. Tools made on ground stone are rare but some items such as axe/adze fragments were recovered.

Beyond the stone artifacts it is not possible to say much more about the Small Point Archaic forms. However, it is possible the bone harpoon tip, a bone point and the copper items mentioned earlier date to this period of site use.

Floral/and Faunal Remains

As will be discussed below in detail, the Small Point Archaic occupation of the site is associated with a large number of features including pits and what are clearly structures or houses. These features contain a considerable amount of floral and faunal material. Unfortunately, however, these features were usually dug down through earlier Broad Point age deposits and in doing so, much older material became incorporated in the later features. For example, one large, 4.5m diameter pithouse, described below, was cut down through and removed part of the earliest dating Broad Point midden! Such mixing becomes apparent in that we have actually obtained radiocarbon dates on the same small pit features that are actually 1000 years apart and that one occasionally can find distinctive Broad Point artifacts in the same feature refuse as Small Point ones! If the artifacts themselves are mixed up then in many of the features the floral and faunal materials likely are too. Therefore, and although analyses are far from compete, at present there is little material that can be associated at this time with Small Point Archaic. Deer (including an antler bearing skull fragment) and possibly bear are the only animal species which currently can be associated definitively with this later site occupation. The floral remains include beech, ironwood, ash, elm and oak charcoal as well as charred oak acorns, butternut shell and, most commonly, black walnut shell. The nutshell and acorns suggest fall site use but, as mentioned in earlier discussions, such materials can be stored for later consumption.

Human Remains

No burials *per se* were encountered in our excavations. The only human remains recovered were the single tooth of an adolescent. This find was dutifully reported immediately, as required by law (and ethically), to the police, local coroner, Cemeteries Regulation Unit of the Ontario Ministry of Government and Consumer Services, and the local Kettle and Stony Point First Nation. This tooth was found in the buried black humic soil near the southeast corner of Block Unit C and more than likely dates to the period of Small Point Archaic site use.

Features/Constructions

While it hard to associate all contents from many features and constructions as being from the time of Small Point Archaic use, many features were clearly made and employed during the Small Point Archaic. Some features, such as small, shallow, non-descript pits are not much different from those associated with the older Broad Point occupation. Of some note, many pits tended to occur in clusters and most of the pits in particular clusters were internally consistent in size and outline/profile shape. For example, Figure 32 shows the location of several such clusters in Block Unit A, one of which in dark grey in the south-central area (Features #49, 50, etc.) actually dates to the earliest period of Broad Point Archaic site use. This evidence suggests the pits in such clusters were used for the same purposes -- although the variability between different clusters in feature size/form suggests that the each cluster was not used for the same purpose. It is also probable that each feature in the same cluster was used about the same time by the same individuals or individuals who personally knew each other in daily life and assigned specific spatial areas to certain sets of activities. The function of these pits is unknown as the contents largely reflect waste disposal/dumping after the pits had served their initial functions. One small Terminal Archaic pit in the Block Unit C Extension area was notable as it contained some black walnut shell and a significant quantity of deer bone, probably from one animal. One bone fragment was part of a male deer skull with an antler segment still adhering (Figure 33).

Some features found earlier, such as large in-ground storage pits, are not documented for the Small Point occupation. At the same time there are several feature forms associated with this occupation not seen earlier. One Small Point feature form is two shallow pits with single large posts extending down underneath their centre. In both cases the posts are 17 cm in diameter and they extend down 17 cm and 78 cm respectively below the encompassing pit bottoms. The deepest post had a pointed bottom (see Figure 34). These posts had identical fill to the overlying pits themselves. The identical fill indicates the posts do not represent earlier use of the same place subsequent to which there was use of the same location for digging a pit – the pits and posts are functionally related. These kinds of features have been reported from other Archaic sites (e.g., McElrath and Fortier 1983:25, 53; Purtill 2012:131). The posts have been interpreted as evidence for drying racks or even cooking spits. It seems unlikely a cooking pit would be surrounding a post and there was no actual evidence of burning/heating in these Davidson examples. Also, the very large depth and diameter of the one pictured example (Figure 34) makes it unlikely it served for those drying/cooking purposes. We think it probable the Davidson Terminal Archaic pits of this nature, and certainly the deepest example, had a pit dug to help facilitate inserting the large posts deeper into the ground. Exactly what those posts were used for is a different question. They could have been parts of some kinds of central support posts for a structure that had more ephemeral walls, or perhaps more likely, they could have even been marker poles of some kind (see below).

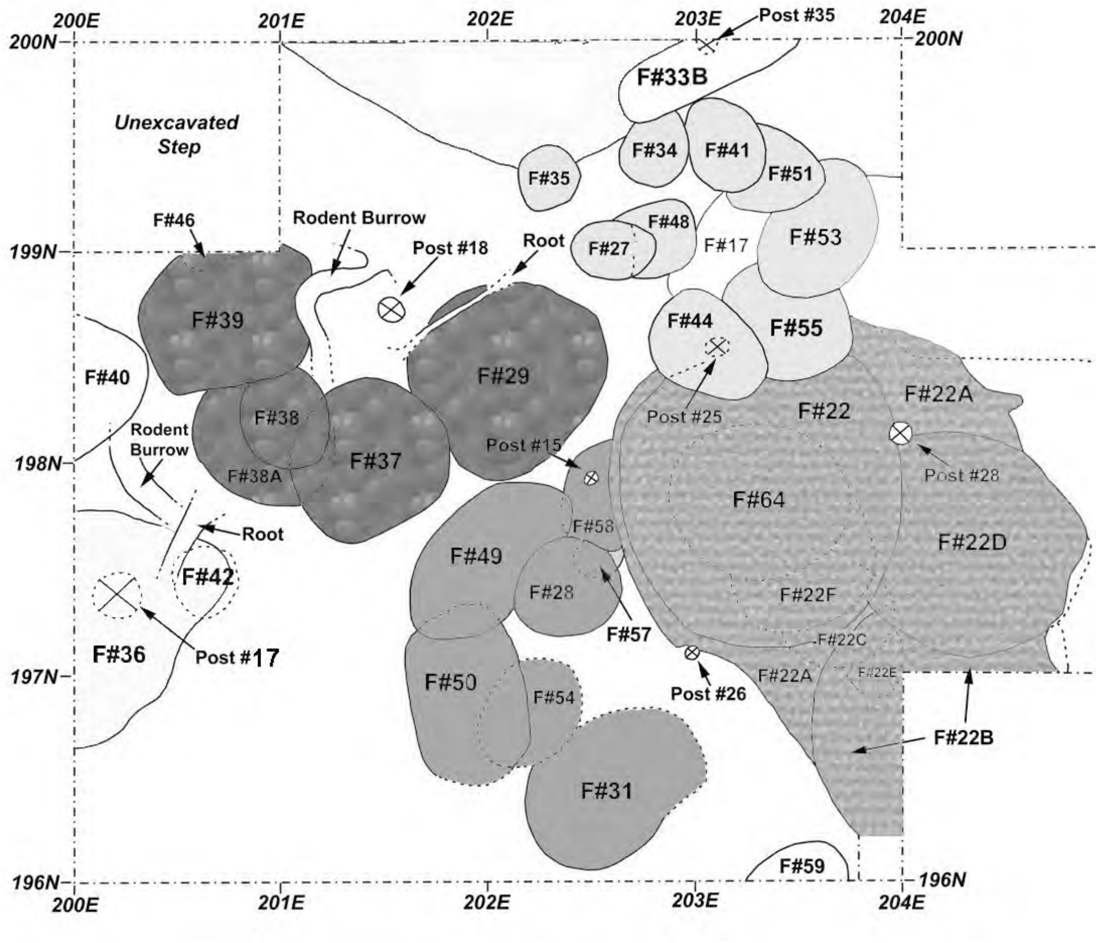

Figure 32: Feature Clusters in Block Unit A and Block Unit A Extension. Different pit clusters are distinguished by different shades and stippling. All are Small Point Archaic except for the southcentral dark grey cluster (Feature #49, 50, etc.) which is Broad Point in age.

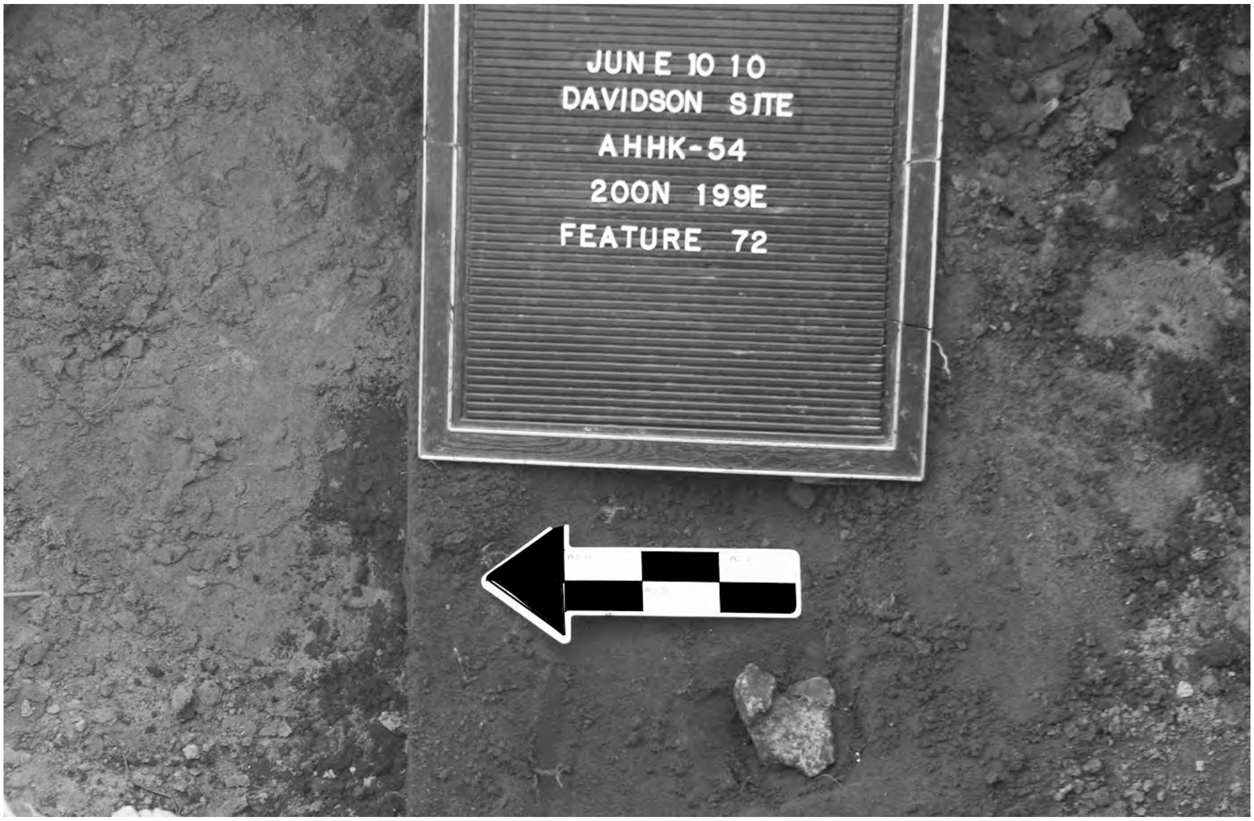

Figure 33: Deer Skull with Antler Base Still Adhering in Small Point Archaic Pit Feature #72, Block Unit C Extension Area. Dated ca. 1100 BC.

Another feature/construction of note is clusters of large overlapping pits with relatively circular outlines and basin shaped profiles. Two such pit clusters were excavated, both of which corresponded to a large magnetic anomaly during the gradiometer survey -- so many more such clusters are probably present in the largely unexcavated band of anomalies. In each instance, at least one of the features still retained a lining of fire-cracked rocks and some of the pits had evidence of in place firing. It is plausible that these pits represent earth ovens although exactly what was being baked/cooked in them is not clear. Earth ovens are filled with hot rocks, covered/heaped over with earth and then left to cook for several hours. The heap of earth placed over the pit serves to insulate it and ensure the enclosed foodstuffs are well cooked. Often, since there is not enough earth from the dug pit itself to heap up the cover, and also because the area is reused and redug, earth is scraped up from surrounding areas and the result is the oven(s) can be surrounded with a shallow “borrow zone or pit” (see Black and Thoms 2014:218). Notably, in one of the clusters at Davidson (Feature 22/64 cluster shown in stippled light grey on Figure 32) the pits are surrounded with a shallowly dug out area resembling such a borrow pit called Feature #22A. This cluster also has some posts associated with is perimeter suggesting the cluster may have been placed under a porch or shelter. Although their interpretation varies by investigator, comparable clusters of large pits surrounded by potential borrow zones/large organic stains, sometimes with associated posts, frequently have been reported from other Archaic sites (e.g., Johnston 1984: Figure 32; Robertson et al. 1999:107; Williamson & MacDonald 1997) and they may also represent such earth ovens.

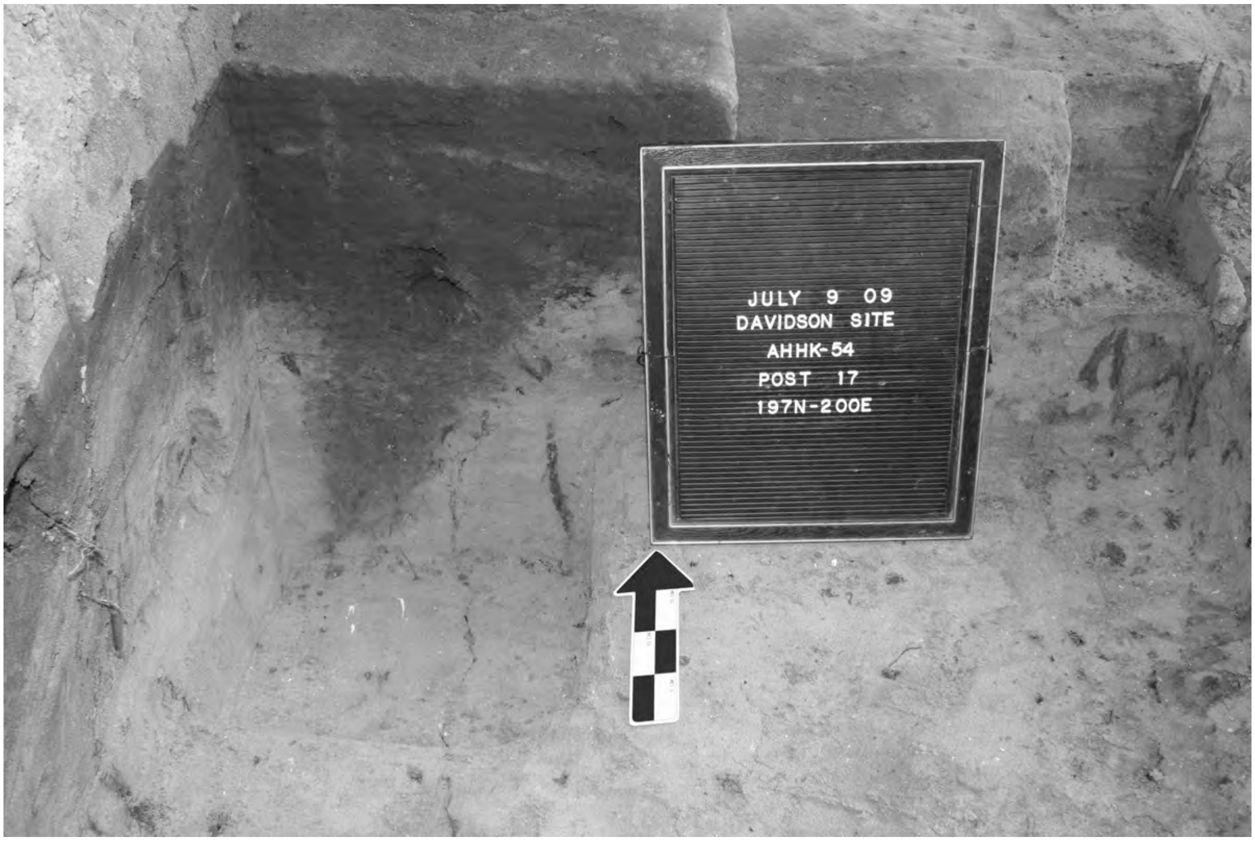

Figure 34: Profile of Large, Small Point Archaic Associated, Pointed, Post Stain Located Under Feature #36, Block Unit A. Dated at ca. 1300 BC.

The final Small Point features of note are structures/houses (see Ellis et al. 2015; Ellis et al. 2010; Ellis and Keron 2011 for more detailed descriptions). Four definitive structures were found in the small area excavated but one of these extends mostly outside the area excavated so only three were investigated. Since only a small area was excavated, many more houses are probably present in unexcavated areas. Indeed, extrapolating from the number found in the excavated part of the gradiometer anomaly band to the maximum areal extent of that band, and assuming a uniform density of houses across the area, conservatively estimates that at least a hundred houses are present (Eastaugh et al. 2013). The houses from Davidson represent some of the earliest dating definitive ones ever found in Ontario and triple the number of definitive Archaic age houses that have ever been documented in the province. All are of a relatively small size, suggesting each house only housed a family or extended family group.

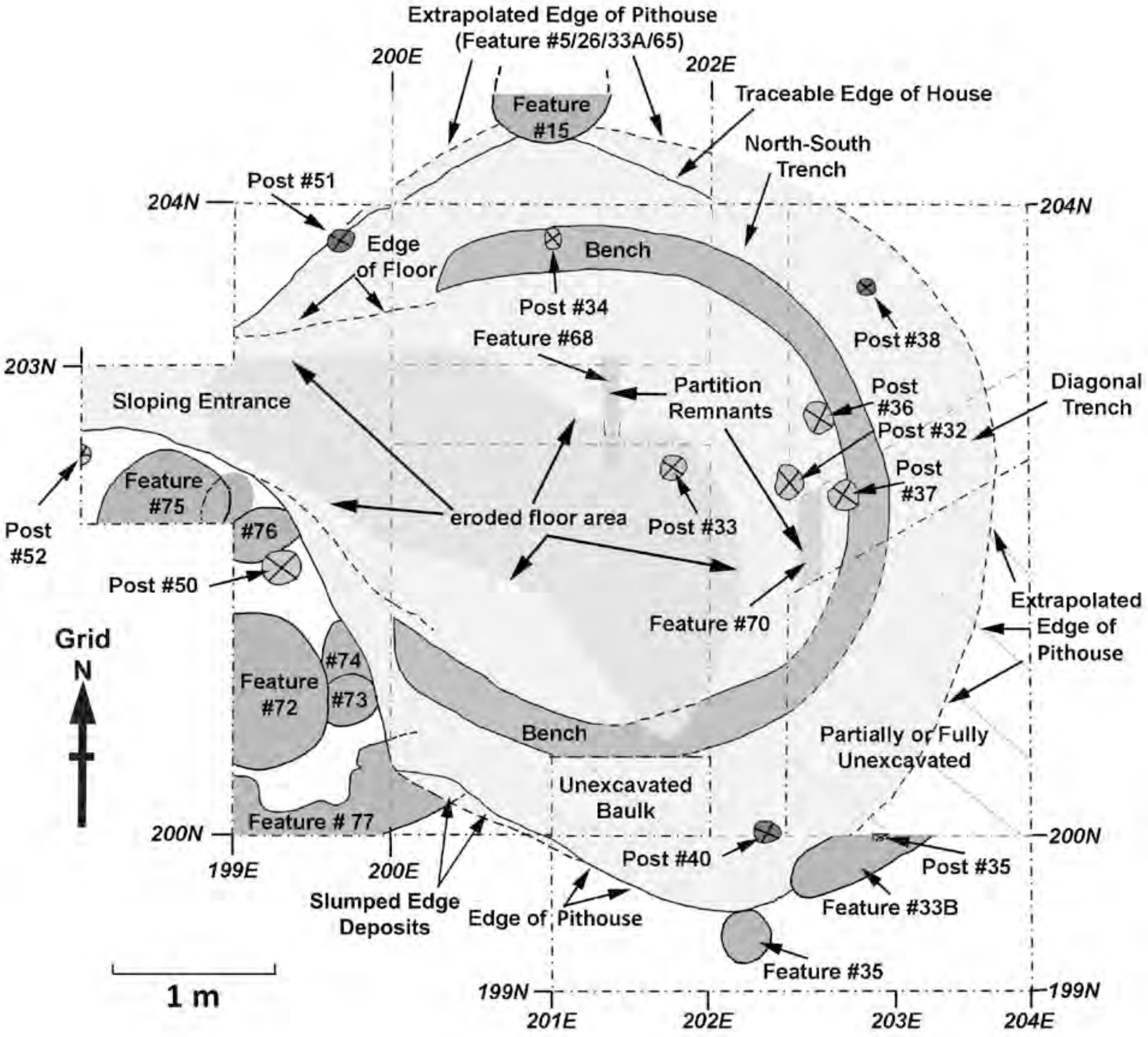

Figure 35: Large Pit House Centered in Block Unit C. Note how it cuts through earlier Features such as, at lower left, the Broad Point hearth Feature #73 and Broad Point midden Feature #77.

Three of the houses, including two of the extensively investigated ones, are pit houses – that is, their bases were dug down into the ground. At a worldwide scale, such pit houses always represent cold weather use as the pit structure provides very good insulation (e.g., Alexander

2000; Faulkner 1977; Farwell 1981; Gilman 1987). The largest of the houses had a keyhole shaped outline in plan view consisting of the large circular body of the house with a narrow sloping entrance dug on one side facing the river (left of Figure 35). Some small posts adjacent to the sloping entrance likely helped support a roof or porch extending out over that area. However, on the south side adjacent to the entrance was found a stain left by a very large post that was 17cm across and set down into the ground some 48 cm deep. This large size makes it unlikely it supported an entrance cover and it may actually represent something else such as a marker/symbolic post standing outside the house that perhaps bespoke the social identity/affiliation of the occupants. Potential marker or decorated posts have been reported outside structures in other areas and use of them is reported in many early writings about First Nations/Native American peoples (e.g., Harl 2009:393).

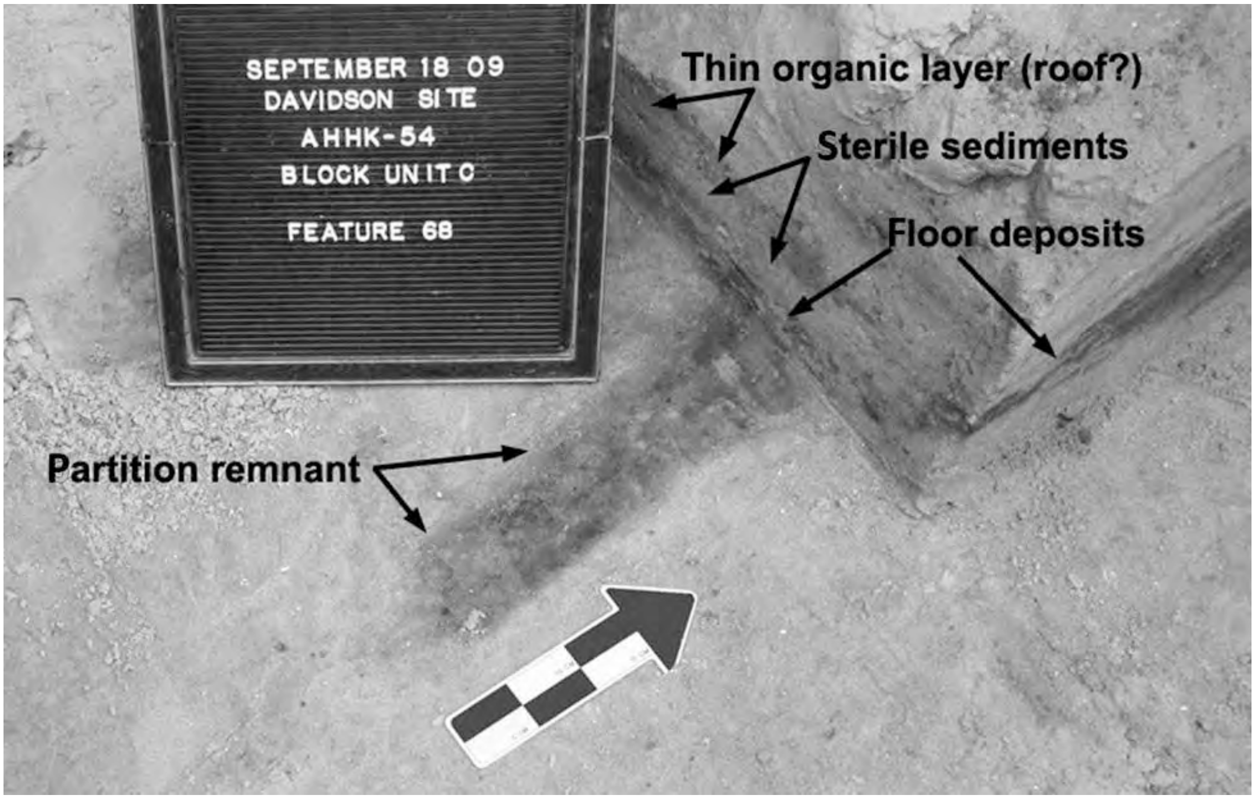

Figure 36: Stain (Feature #68) Representing Decayed Partition in Pit House. Note how stain extends down below profile of the house floor at upper right.

The main circular body of this pit house was about 4-5 m across and was dug down a metre deep. Around the sides and back of this house the occupants dug a narrow shelf or bench for sitting or sleeping. Across the centre of the house at right angles to the door was a linear stain (Feature #68; see Figures 35 & 36) representing a remnant of a partition that had bark flaps inserted into the ground. Another similar partition closed off a storage or sleeping area at the very back of the house. It is plausible that its positioning was to keep the rear of the house warmer by sealing off air flow from the entrance. Unfortunately, much of the floor area was eroded away after the house was abandoned. Nonetheless, stains representing remains of several, larger, vertical, roof support posts were found on the floor and in the bench area. In addition, apparently at all four corners there were posts inserted diagonally that sloped out and joined above the house centre, these posts serving as roof supports or trusses. One suspects these beams were then covered with logs laid down side to side across the roof supports, overall leading to a pyramidal shaped roof. Thick deposits of earth were found at the edges of the house. These represent the soil removed to dig the house pit itself. Typically, in more recent times, after the roof was built the rim area soil was then piled up on top of the edge of the roof for extra insulation. This house was radiocarbon dated on burned deciduous wood from a refuse deposit along its south wall to ca. 1400-1300 BC.

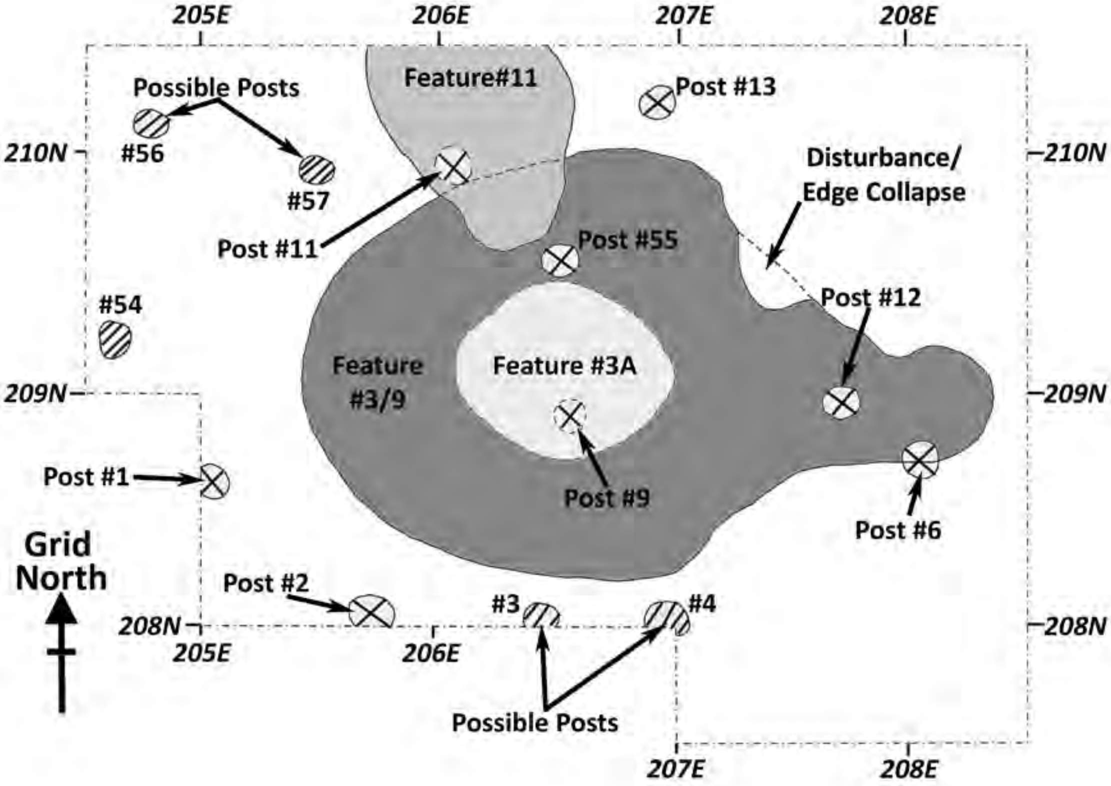

Figure 37: Small Pit House in Anomaly Area I.

The second extensively investigated pit house has a different design (Figure 37). A ca. 1.5 m long sloping entrance and a 2 by 2 m area at the front part of the house was dug down into the ground (right side on drawing). However, a ring of posts surrounding the back of the house indicate its extent was 0.5 to 1 m larger in that area – apparently the back of the house was at ground level. Within the centre of the house pit was a smaller, relatively circular pit about 78 cm across (Feature #3A; Figures 37 & 38). The whole body of the house was also covered with a thick layer of darker soil containing much occupation debris. It is apparent this soil represents an insulating level of a collapsed, sod-covered roof. After the house as abandoned a pit was dug through its north edge (Feature #11 on Figure 37). This house was directly dated by a radiocarbon date on charred black walnut nutshell recovered from its floor to ca. 1000 BC. The entrance end of a very similar house was also uncovered at the site in the east edge of Block C but it extended mainly beyond the area we excavated.

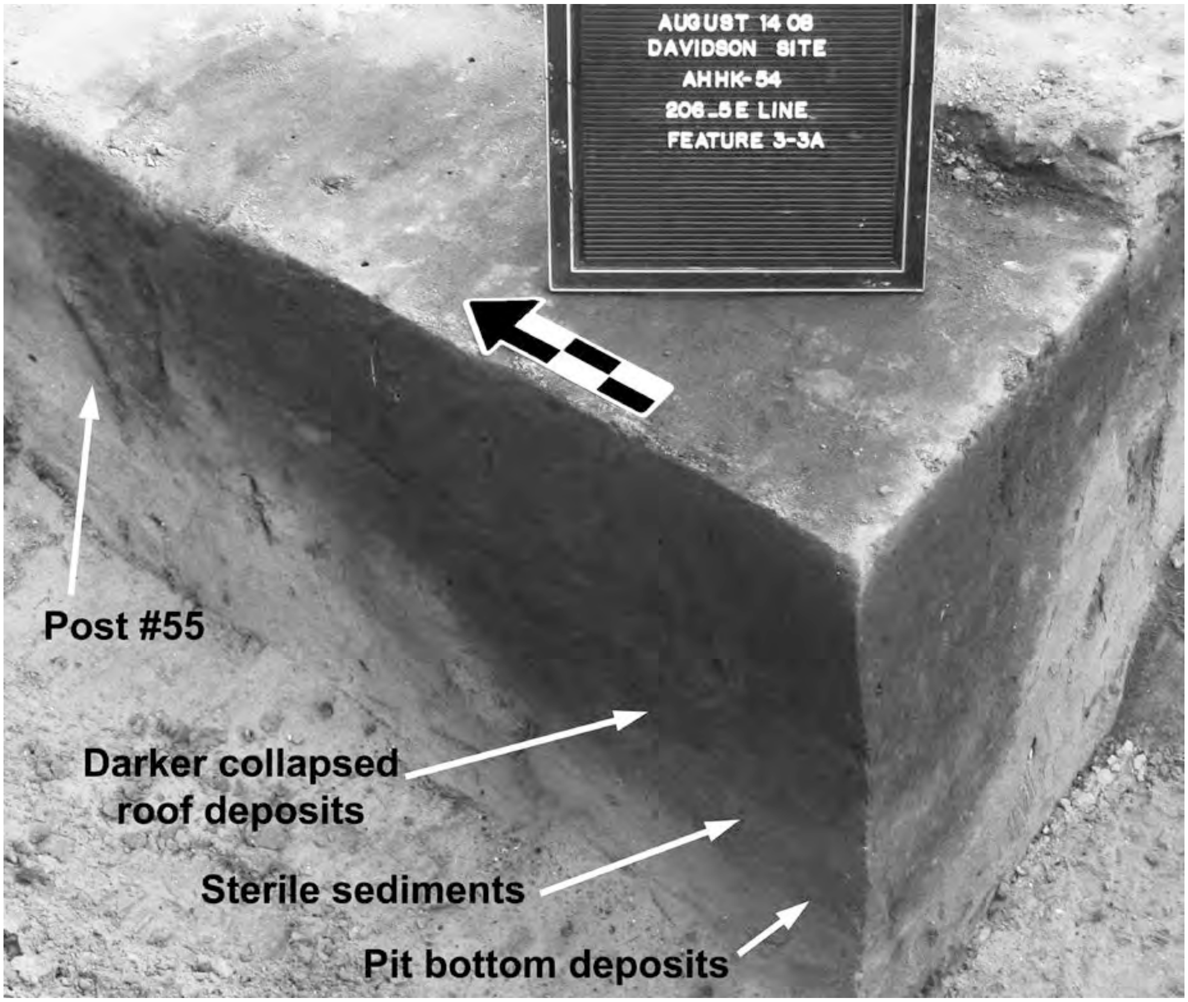

Figure 38: North-South (left) and East-West (right) Profiles in NE Corner of Small Pit (Feature #3A) in Centre of Small Pit House, Anomaly Area I

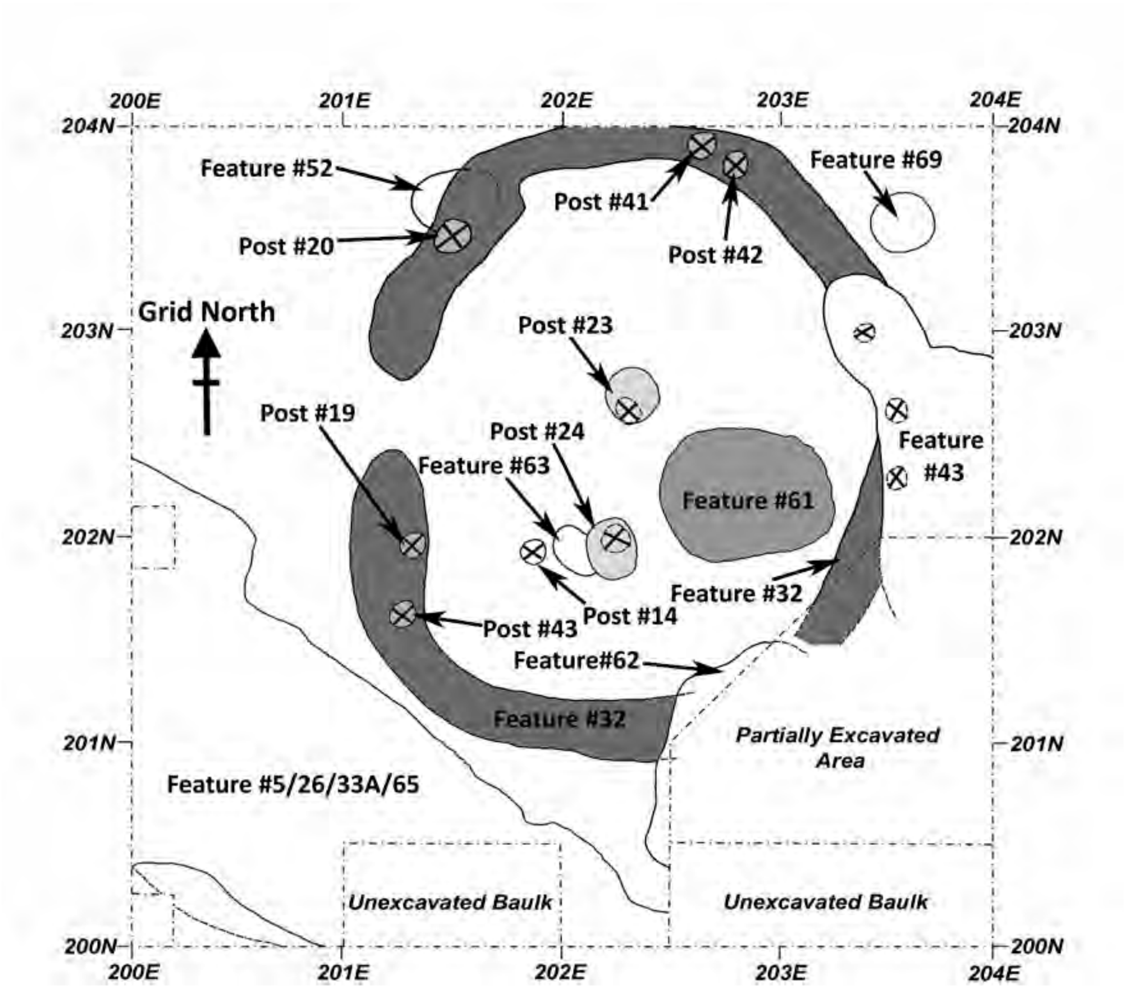

Figure 42: Wall Trench House (Feature #32) in Block Unit .

The final house documented was constructed at ground level. It was a small oval house measuring about 2.5 by 3 m (Figure 42). It was actually found on top of sterile flood deposits that had filled the large pit house shown above in Figure 35. The house was outlined by a 25 cm wide and up to 30 cm deep trench, which had been dug to insert the wall posts. Because most of the posts were inserted in the trench, and did not extend below or much below that trench, only the very bottoms of a few small post stains were visible. A gap in this trench on the west side was clearly the entrance and a thicker trench on each side of the door suggests the wall was reinforced in that area. Inside were found two well-centred stains from vertical posts that supported what was probably a dome-shaped roof. A small, shallow, pit in the rear of the house may have served as a place to cache personal belongings but it contained a small amount of refuse including beech and ironwood charcoal as well as either charred butternut or black walnut shell. An Archaic house identical to this one, but dating about 500 years earlier, was reported some years ago from the western Michigan Rock Hearth site (Garland et al. 1990). As there is no insulation around the walls of this house and because it lacks a floor dug down into the ground, it is possible it represents warmer weather use. While there is little from the Davidson house to evaluate season of use other than these structural features or lack thereof, such an interpretation would be consistent with the house from the Michigan site where a wide range of fauna and flora suggested summer to fall use for this kind of structure. Three radiocarbon dates on charred nutshell from this house indicate it was used around 1200 BC-1100 BC.

Summary and Conclusions: Small Point Archaic Occupation

The work at the Davidson site has shown the site was intensively used in the period of ca. 1400-1000 BC or roughly just over 3000 years ago by people making smaller sized notched and expanding stemmed stone weapon tips/knives. Use during this period was heavily concentrated in a ca. 4000 m^2 area at the northwestern site margin lining and primarily within 25 to 30 m swath along the apparent river bank of the Ausable at that time. Multiple occupations seem to have occurred with spatial clustering in the different Smallpoint varieties suggesting slight shifts in spatial use over time. As a result of the numerous episodes of site use, it is not known how large the groups were that used the site and it is possible that the large amount of debris is due more to site reuse over a long period, and for longer periods of the year, rather than to occupation by a large overall group of people.

Associated with these Archaic occupations are several definitive houses that are amongst the earliest ever reported for Ontario. The gradiometer surveys strongly suggest many more such houses, probably in excess of 100, are still preserved at the site and indeed, we think we hit the very edges of some others in our excavation units. The dense band of gradiometer/magnetometer anomalies associated with these Terminal Archaic occupations suggest literally thousands of features including not only houses but many pit forms are present.

With the exception of a wall trench-outlined house of a form reported earlier form Michigan, the other houses documented, all pithouses, are of forms never before reported anywhere. All the houses are small suggesting they were single family dwellings. The pithouses provide excellent evidence for use in the colder fall to winter months. The pithouses are quite substantial structures even for cold weather houses. Based on the descriptive literature many groups historically did not necessarily build pithouses in the winter. Rather, there is a close association between pithouses and not only winter occupations but also groups who do not move their residences in winter and maintained a single settlement throughout that season (e.g., Gilman 1987:541-542). In sum, because they were not moving and were occupying the sites for some time, at least several months per year (and often returning to the same location over several years), these groups invested more heavily in building such structures. Their presence at Davidson is another clue that people were moving less often in the later Archaic.

It is also notable that worldwide during the time of written records pithouses not only are an indication of winter use and a more sedentary existence but also of a heavy reliance on storage – the reason people do not have to move in winter is that they can remain in one place and live off the accumulated stored surpluses (Gilman 1987:541-542). We stress that, in contrast to the earlier times of use when Broadpoints were made, there are no in-ground storage pits documented in these Terminal Archaic occupations at the site. However, as noted before, in-ground storage is a clue to winter abandonment in Broad Point times. In sum, with people occupying the site in the winter, it is most probable the Smallpoint-making peoples were simply storing their surplus foods above ground, a practice that would leave little residue in the archaeological record.

It is possible that the site was used also in the warmer months in Small Point times. The suggestion of use in warmer weather is the wall trench house, which lacks evidence of insulation such as piled up earth or a sod roof. Interior hearths are also ubiquitous on *surface winter houses* as opposed to *pithouses.* In pithouses the in-ground insulation and simple body heat, assisted by thick sod roofs and such, can actually keep the structures quite warm (Hayden 1997:51). However, such hearths are lacking in the wall trench house interior suggesting it may be a warm weather house. Also, as noted earlier, the broad range of flora and fauna recovered from the very similar house form at the Rock Hearth site in Michigan suggests use during warmer weather. If the site was also used in warmer weather as in the summer along with the winter-related pithouses the site could have been used for much of the year – a much more sedentary existence that has been argued in the past for these Archaic times would be indicated. However, it is also possible that over the time the site was used that season of use shifted, from summer in some years to fall and winter in others. It is difficult to evaluate these ideas with present evidence.

CONCLUSIONS

We believe the extended work at the Davidson site from 2006 to 2015 has resulted in the most thorough documentation of an Ontario Archaic age site ever achieved. In doing so it has resulted in the best evidence to date, via multiple radiocarbon dates, as to the actual age of two major, long known but poorly documented Archaic developments called the Broad Point and Small Point Archaic. It has documented that some Archaic sites are very large and complex, as opposed to the stereotype that they are small and ephemeral and has suggested one reason may be, at least in Broad Point making times, that the larger sites represent population aggregations rather than simply slightly shifting use over long periods of time.

While both groups used the same location, there are strong suggestions that exactly how the site was used by each group varied considerably. For example, Broadpoint-making peoples seem to have used the site primarily in the summer to fall (and, as just mentioned, as a large aggregation location). In contrast, Smallpoint-making peoples occupied the site in the fall to winter and perhaps at other seasons or for most of the year. There may also be a temporal gap between these two main occupation times when the site was not used, although this gap in dates could be a product of the limited area sampled. Nonetheless, between the two main periods of site use there is the suggestion of a temporal gap and major shift in how the site was used by First Nations peoples. There are also real differences in the external geographic relationships of the site populations as suggested by shifts in artifact style from ties to the southeast-south (Broad Point) to ties to the west-midwest (Small Point). Explanation of such differences needs to be explored in the future.

The work also has shown that there is good evidence in the form of middens, substantial structures and so on, features rarely or never seen before at this early date, to support the idea that Late Archaic peoples in this area had a more sedentary/less mobile way of life despite little reliance or no reliance on agricultural food products. Of great importance, the work has begun to reveal formerly unknown or hidden details of the daily life of these First Nations ancestors such as their use of certain forms of pithouses. In turn, as discussed, the pithouses and other finds are treasure troves of information about season of site use, degree of reliance on food storage, patterns of movement at various seasons and the size of residential groups. However, as stressed many times above, our analyses of the recovered Davidson site artifact collections and associated excavation information are just beginning. It is going to take many years to complete analyses and fully understand the nature of the site occupations. Moreover, it is obviously impossible to find out everything one would like to know from a single site and of course, a large site of which only a very tiny segment has been excavated!

Dedication: This paper is respectfully dedicated to the memory of
Marlene Davidson.

Acknowledgments: Financially, this project was made possible by a Standard Research Grant (#410-2007-1690) and an Insight Grant (#435-2013-0324) from the *Social Sciences and Humanities Research Council of Canada*. Additional support, in the form of monies to purchase a total station and a gradiometer was provided through a 2007 grant to Ellis, Lisa Hodgetts and Robert Pearce from the *Academic Development Fund* at the *University of Western Ontario*. The project also was facilitated by the use of various geophysical instruments and a flotation device provided by the *Sustainable Archaeology*

Facility at Western located at the *Museum of Ontario Archaeology*. That facility was made possible by grants from the *Canadian Foundation for Innovation* and the *Ontario Innovation Trust* with Neal Ferris (University of Western Ontario) and Aubrey Cannon (McMaster University) as principal investigators.

Numerous individuals and groups contributed to the success of the fieldwork. First, we acknowledge the unstinting support of the landowners Mr. Rick and the late Mrs. Marlene Davidson who gave us unrestricted site access to carry out the work on their property. You could not find nicer or more supportive people. Second a special vote of thanks also to Greg George and many members of *Kettle and Stony Point First Nation* who provided moral and logistical (and in some cases spiritual!) support and encouragement for our endeavours at the site. In addition, we must thank Brian Deller, Peter Timmins, Kim Clark and Fernando Larrea who made available their properties in the local area to accommodate the field crew during the excavation period. Brian Deller also deserves many thanks for originally introducing Ellis to Mr. and Mrs. Davidson and showing him the site location. Ellis cannot thank him enough for all of his help and support in his archaeological endeavours over the past 40 years. Stan Wortner assisted in moving equipment on and off the site and Jean-François Millaire assisted with site mapping. Assistance in interpreting the site geology and environment was provided by Sarah Finkelstein (University of Toronto) and John Menzies (Brock University) and Lindsay Foreman assisted in preliminary identifications of faunal remains. Vito Lam, Sarah Simpkin and Sarah Steele assisted Phillips and Desloges with the GPR, river bank and floodplain work. Finally, we acknowledge the *Grand Bend Produce Company* who allowed us to examine properties they own on the opposite side of the river from the site during our attempts to find out about the environmental history of the area.

The initial fieldwork at Davidson included test excavations with a volunteer crew in June of 2006. That crew included: Chris Dalton, Elise Dalton, Darryl Dann, Jim Keron, Bob Pearce (Museum of Ontario Archaeology), Steve Timmermans, Nancy Van Sas and Stan Wortner. Darryl Dann, Ed Eastaugh, Toni Largo, Alanna Marsden, Cliff Patterson and Krysta Terry assisted Ellis in mapping, surface collecting and doing soil probes at the site during the 2007 field season. Neal Ferris, at that time with the London office of Ontario Ministry of Culture, Heritage Branch, provided the services of Alanna Marsden and Krysta Terry via the Ministry's summer student work programme. Neal also made available on loan at that time the artifact collections and site records from Davidson pertaining to the late 1970s work at the site by Ian Kenyon.

During the full scale excavations in the summer of 2008, Lindsay Foreman and James Keron served as associate field directors. The full-time field crew included: Nathalia Acosta (University of Western Ontario), Colin Bressette (Kettle and Stony Point First Nation), Darryl Dann (volunteer), Travis George (Kettle and Stony Point First Nation), Jenna Jaworski (University of Western Ontario), Matt Seguin (McMaster University) and semi-regular Chris Dalton (volunteer). Many other volunteer fieldworkers also contributed to the success of that year's project including Rick Baskey, Eliza Brandy, Abigail Dalton, Justine Dalton, Sue Haryatt, Thorsten Kragh, Alexandra Lausanne, Brenda Lausanne, Dana Millson, Miggs Morris, Steve Naftel, Monica Norris, Lisa Paulaharju, Nancy Van Sas, Jan Vicars, Deb Wilson and Stan Wortner. Additional fieldworkers included summer works students made available through the auspices of Shari Prowse, Ontario Ministry of Culture, Heritage Branch. These included Melissa Edwards, Marilyn Varney, Karen Waldick and Jennifer Watt.

The full-time excavation crew in 2009 included Nancy Van Sas and James Keron who served as associate field directors and the fieldworkers were: Nathalia Acosta (University of Western Ontario), Darryl Dann (volunteer), Jennifer George (Kettle and Stony Point First Nation), Travis George (Kettle and Stony Point First Nation), Lindi Masur (University of Western Ontario), Steve Naftel (University of Western Ontario), Larry Nielsen (volunteer and University of Western Ontario), Matt Seguin (McMaster University) and semi-regular Chris Dalton (volunteer). There were many other volunteers who also contributed in 2009 including Rick Baskey, Matt Beaudoin, Lindsay Foreman, Lorraine George (Kettle and Stoney Point First Nation), Ernest Lara, Bevan Lindsay, Jesse Oliver, Harvey Reid, Gary Warrick, Deb Wilson and Stan Wortner. Once again, summer works students made available through the auspices of Shari Prowse, Ontario Ministry of Culture, Heritage Branch also participated. These included: Kaye Lynn Boucher; Kathryn Gilbert, Eryn Holborn, Allison Knott, Kelsey McLellan, Marilyn Varney, Kristen Waldick and Dennis Wilson.

In the 2010 surface collections and limited excavations James Keron served as associate field director. Besides Jim, the totally volunteer field crew included: Darryl Dann, Chris Dalton, Ed Eastaugh and Larry Nielsen. In 2011-2013 fieldwork, Ed Eastaugh, Jim Keron, Darryl Dann, Rebecca Parry, Alex Lausanne, Matt Beaudoin and the University of Western Ontario Anthropology 3307a field methods course participants assisted in additional surface collections. In 2014 the surface collecting and test excavations used a wholly volunteer field crew included: Chris Dalton, William Fox, Sherman Horn, Kaitlyn Malleau, Lindi Masur, Katie Mather and Larry Neilsen. James Keron and Darryl Dann served as field assistants/supervisors. Finally, in 2015 the surface collection of artifacts and their mapping was again made possible by a dedicated cadre of volunteers: Nicole Aszalos, Carolina Delgado, Kyle Forsythe, Kaitlyn Malleau, Ramsay Macfie and of course, Darryl Dann, Ed Eastaugh and Jim Keron.

In the lab many individuals assisted in the washing, cataloguing, sorting and preliminary analyses of the recovered materials and information. These include Larry Nielsen who has served as the chief cataloguer and artifact washer with many contributions from Jim Keron, Lindsay Foreman, Darryl Dann and Larry Nielsen. Assisted by Carolina Delgado, Alexandra Lausanne and Rebecca Parry, they began the laborious task of sorting the individually catalogued artifacts into preliminary categories to refine/debug the catalogue and begin in-depth analyses. Alex Lausanne and Catharine Finan also sorted many feature flotation samples. The actual artifact processing and cataloguing has been done by volunteers and University of Western Ontario work study students: Monica Blaylock, Chris Dalton, Rebecca Anne Dillon, Marissa Evers, Lindsay Foreman, Trevor Fowler, Amanda Gamble, Hannah Graves, Pam-Marie Guzzo, Amanda Hardman, Julianna Larrea-Clark, Marisol Larrea-Clark, Stephanie MacDougall, Lindi Masur, Laurie-Lynn Percy, Claire Venet-Rogers, Krysta Terry, Rammi Wickramasuriya, and those ever present stalwarts, Larry Nielsen and Darryl Dann.

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